

HISTORY OF THE EDUCATION OF THE BLIND

BY

W. H. ILLINGWORTH, F.C.T.B.

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BY

W. H. ILLINGWORTH, F.C.T.B.

SUPERINTENDENT OF HENSHAW'S BLIND ASYLUM, OLD TRAFFORD, MANCHESTER
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To

MY BELOVED FRIEND AND COUNSELLOR

HENRY J. WILSON

(SECRETARY OF THE GARDNER'S TRUST FOR THE BLIND)

THIS LITTLE BOOK IS

RESPECTFULLY DEDICATED

IN THE EARNEST HOPE THAT IT MAY BE THE
HUMBLE INSTRUMENT IN GOD'S HANDS OF
ACCOMPLISHING SOME LITTLE ADVANCEMENT
IN THE GREAT WORK OF THE EDUCATION OF

THE BLIND

W. H. ILLINGWORTH

AUTHOR

P R E F A C E

No up-to-date treatise on the important and interesting subject of "The History of the Education of the Blind" being in existence in this country, and the lack of such a text-book specially designed for the teachers in our blind schools being grievously felt, I have, in response to repeated requests, taken in hand the compilation of such a book from all sources at my command, adding at the same time sundry notes and comments of my own, which the experience of a quarter of a century in blind work has led me to think may be of service to those who desire to approach and carry on their work as teachers of the blind as well equipped with information specially suited to their requirements as circumstances will permit.

It is but due to the juvenile blind in our schools that the men and women to whom their education is entrusted should not only be acquainted with the mechanical means of teaching through the tactile sense, but that they should also be so *steeped* in blind lore that it becomes second nature to them to think of and see things from the blind person's point of view. Paradoxical as the latter phrase may appear, it is none the less an absolute fact.

It is necessary for a teacher to realise and to thoroughly appreciate the difficulties which his pupil has to encounter, before he can satisfactorily remove them. I say *satisfactorily*, because, from his earliest days, the blind pupil must be led to have perfect trust and confidence in his teacher, and any hesitancy or vagueness of explanation will make a much deeper impression on the mind of the

blind pupil than would be the case in a child possessed of all its faculties.

To the end, therefore, of providing a means whereby he who runs may read something that will assist him in becoming better acquainted with the history of the education of the blind, I now commit myself, in the hope that my readers will pardon any imperfections which they may find in this little treatise.

THE AUTHOR.

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History of the Education of the Blind

THE PSYCHOLOGY OF BLINDNESS

AT first sight it may appear somewhat incongruous that a work on the "History of the Education of the Blind" should commence with a chapter devoted to a subject which is, to use a common phrase, one of the "burning questions of the day"—a subject which was deemed worthy of a place on the programme of the Manchester Conference, 1908, and on which a most scholarly and edifying paper was read by Mr. J. M. Ritchie, of Henshaw's Blind Asylum.* But "history repeats itself" no less in the blind world than in other spheres, and the earliest treatise on blind lore to which the writer has the good fortune to have access, viz. "Essay on Blindness," by M. Diderot (Physician to his Most Christian Majesty Louis XV. of France), 1773, † bears remarkable testimony to this fact. As this essay was written at the very genesis of blind education it is interesting to note, in the first place, how accurately M. Diderot's deductions coincide with the most advanced ideas on the subject to-day, and, in the second place, how utterly the teachings of his philosophy were disregarded for a whole century and more by those who took in hand the education of the blind. A few verbatim

* A paper on this subject was read by Mr. S. Neil, of Edinburgh, at the York Conference in 1883.

† Reprinted by Sampson Low, Marston & Co. Ltd., Fetter Lane, Fleet Street, London, E.C., 1895.

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extracts from this noteworthy essay will in themselves justify their inclusion here.

Regarding ORDER, Diderot says: "The difficulty which blind persons have in finding things mislaid makes them love regularity and exactness; and I have observed that those about them imbibe the quality, whether from the good example set them by the blind, or from an human concern for them. The blind would indeed be very unhappy without such regard from those about them, nay we ourselves would feel the want of it. *Great services* are like pieces of gold and silver which we seldom have occasion to make use of; but little complaisances are as current cash, which we are continually receiving or paying away."

"JUDGMENT, or symmetry, which perhaps is no more than a matter of mere compact among us, is certainly such in many respects between a blind man and those who have their sight. A blind man studies by his touch that disposition required between the parts of a whole, to entitle it to be called 'fine,' and thus at length attains to a just application of that term. But, in saying *that is fine*, he does not judge: it is no more than repeating the judgment of those who see."

VISUAL IDEAS.—"I asked him [a blind patient] what he meant by a looking-glass—of which he often spoke. 'A machine,' answered he, 'which puts relieve things at a distance from themselves, if when properly placed with regard to it.'

"This man knows from the account of others that objects are known by means of the sight, as to him by the touch—at least, it is the only notion he can form of them. He further knows that there is no seeing one's own face, though it may be touched. He must therefore conclude sight to be a kind of touch reaching only to objects different from our face, and at a distance from us. The touch gives him only an idea of relief; therefore, adds he, 'a looking-glass is a machine representing us in relief out of ourselves.'"

EYES.—" 'And what do you take eyes to be?' said I. 'They are,' said the blind man, 'an organ in which the air has the effect which my stick has on my hand. So true is this, that on my putting my hand between your eyes and

an object, my hand is present to you, but the object is absent. It is the same with me, when I am seeking one thing with my stick and meet another.' ”

VOICES.—“ He has prodigious remembrance of sounds ; and the infinite diversity we perceive in faces he perceives in voices, with numberless minute gradations which escape us *as not so much concerned to observe them*. . . . The helps which our senses reciprocally afford to each other hinder their improvement.” *

SIGHT AND TOUCH VALUED.—“ One of our company asked the blind man whether he should not be very glad to have eyes. ‘ Were it not for curiosity,’ said he, ‘ I would full as lieve have long arms. My hands, I think, would inform me better what is doing in the moon than your eyes or your telescopes. Besides, the eyes sooner cease to see than the hands to touch, that to improve the organs I have would be as good as to give me that which is wanting in me.’ ”

The last sentence sums up the whole aim of blind education. In a conversation with the writer some months ago, Dr. Eichholz, H.M. Inspector for Special Schools, said : “ Education of the blind absolutely fails in its object in so far as it fails to develop the remaining faculties to compensate for the want of sight.”

Comparing this expression of opinion with the following paragraph from a letter signed “ Demodocus,” in the *Edinburgh Magazine and Review*, November, 1774—“ The most important view, therefore, which we can entertain in the education of a person deprived of sight is to redress as effectually as possible the natural disadvantages with which he is encumbered, or, in other words, to enlarge as far as possible his sphere of knowledge and activity. This can only be done by the improvement of his intellectual imagination and mechanical powers, and which of these ought to be most assiduously cultivated, the genius of every individual alone can determine ”—it is seen that the ideal for blind education to-day is precisely the same as it was a hundred and thirty-five years ago. But, alas ! the history

* This is, of course, only according to the ordinary laws of evolution.

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of the progress towards that ideal proves how sadly that progress has been retarded through the failure of those interested in the work to realise that touch and sight must be developed by means which, practically in all respects, are dissimilar; for, to again quote Diderot, "we distinguish the presence of things out of us from the imagery of them in our imagination. So the blind man discerns the sensation from the real presence of an object at his fingers' ends, only by the force or weakness of that very sensation. Should a philosopher who has been blind and deaf from birth ever make a man in imitation of Descartes, I dare affirm that he will place the soul at the fingers' ends, as from thence deriving his principal sensations, and all his lights."

EDUCATION OF THE BLIND—READING

It is impossible to say who was the first person in the world to conceive the idea of the possibility of teaching the blind to read by means of raised characters. Many people are under the impression that this distinction belongs to Valentin Haüy, but that such is not the case is clearly proved by reference to the essay quoted above, where M. Diderot relates a visit to a blind man. He says: "It was about five in the afternoon when we came to the blind man's house, where we found him hearing his son read with raised characters." This was prior to 1773, and we know Valentin Haüy did not begin his experiments till 1784.

It is probable that isolated cases of blind people reading from raised type had occurred during many years, perhaps centuries before this. Valentin Haüy himself refers to such sporadic attempts to teach *relief* reading.

VALENTIN HAÜY

(BORN 1745; DIED 1822)

The name of this renowned Frenchman should be written up in letters of gold in every institution for the blind in the world, and all pupils, young and old, should be taught

to revere his name, seeing he was the first—of whom we have any record—who conceived the idea of systematically teaching the blind to read by means of raised characters.

Haüy was a native of Picardy, and tried his earliest experiments on a blind youth named Le Sueur. He was so far successful that in 1784 he took his pupil to Paris, there to exhibit him as an example of what might be achieved by his methods.

The Academy of Sciences, having examined the youth, were much delighted at the results obtained, and praised the efforts of Haüy; whilst the Philosophical Society of Paris showed their appreciation of his labours in a practical manner by providing him with funds to enable him to extend his benefits to others.

During 1785 Haüy gave public exhibitions of his pupils for the purpose of creating public interest and sympathy. In this year the National Institution for the Young Blind (l'Institution Nationale des Jeunes Aveugles) was founded, and to it belongs the distinction of being the first educational institution for the blind founded in Europe.

Towards the close of the following year Louis XVI. expressed a wish to see Haüy's pupils, and Haüy took about thirty of them to Versailles, in the hope that the king would be induced to take the school under his protection. In this, however, he was disappointed, and he was left without any such help.

Disastrous days were in store for the young and struggling school. Paris was shortly writhing in the throes of the great Revolution, and, though the revolutionary Government nominally took the school under State protection, the benefit was *only* a nominal one—the pupils were driven from the school, and poor Haüy, broken by discouragements and in despair of better times, fled his country.

The Emperor Paul of Russia having given him an invitation to visit his capital, Haüy directed his steps thither, and on his way, calling at Berlin, he was instrumental in founding a school for the blind there.

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His next seven or eight years he spent in St. Petersburg, and, in spite of much opposition, managed to start a school for the blind in that city. The emperor failed to give assistance, being afraid to offend his nobles, who were opposed to any scheme which had progress for its object.

When he returned to Paris, in 1817, Haüy found the institution there remodelled, with Dr. Guillié as its head.

Haüy was now poor and cast down by sickness, and, though he could do but little, continued to display great interest in all matters connected with the education of the blind. He died in 1822.

In "An Essay on the Education of the Blind," dedicated to the King of France, 1786, Valentin Haüy states how deeply his whole nature was moved by the miserable condition of isolation from their fellow men under which the blind people of his time suffered. He says: "It is to be essentially serviceable to this class of suffering mortals that I have invented a general plan which, by principles and utensils proper for their use, might facilitate to some of these what they could not otherwise accomplish without almost insuperable difficulty, and render practicable to others what it appeared impossible for them to execute."

In Chapter III. of his essay, on the subject of reading, he continues:

"Before our time various but ineffectual experiments had been tried. Sometimes by the assistance of characters moving upon a board and raised above its surface,* at other times by the use of letters formed upon paper with the puncture of a pin,† the principles or elementary characters of reading had been rendered obvious to the perception of the blind. Already had the wonders of the art of writing, which before had appeared chimerical, been realised; already, under their touch, which was now found a substitute for vision, had the conception of the blind

* It was, doubtless, this method which was used by the blind man referred to by Diderot, as teaching his son to read.

† This idea was utilised many years later by Alston of Glasgow in the formation of his *pin-type* and board for writing.

assumed a body. But these gross and imperfect utensils only presented to the blind the possibility of attaining and enjoying the pleasures and advantages of reading without affording them the proper means of acquiring them. We had no difficulty in exploring them: their principles had existed for a long time, and were daily exhibited to our eyes. We had observed that a printed leaf issuing from the press, presented to the eye, on the contrary side, the letters higher than its surface, but reversed both in their position and in their order.

“We ordered typographical characters to be cast of the form in which their impression strikes our eyes, and by applying to these a paper wet, as the printers do, we produced the first exemplar which had till then appeared of letters whose elevation renders them obvious to the touch without the intervention of sight. Such was the origin of a library for the use of the blind.

“After having successively employed characters of different sizes, according as we found the touch of our pupils more or less delicate and susceptible, it appeared proper to us, at least during the first periods of our progress, to confine ourselves to that type which has been used in printing the greatest part of this work. This character appears to us as a proper medium amongst those which can be felt and distinguished by different individuals who are deprived of sight.”

It is interesting here to note what it was that directly prompted Haüy to attempt the education of the blind. As already stated, he had for some time been moved by the sad condition of his sightless countrymen. Subjoined is Haüy's own account of the incident which stirred his sympathy into active measures of a practical nature.

“Many persons have carried the concern which they felt for our Institution even to demand how such an idea could possibly enter our mind. . . . Anxious to satisfy a curiosity so laudable, we are eager to subjoin here a concise narrative of the rise, progress, and actual state of our establishment.

“A novelty of a kind so singular has attracted for several years the united attention of a number of persons at the

entry of one of those places of refreshment situated in the public walks whither respectable citizens go to relax themselves about the decline of the day.

“ Eight or ten poor blind persons, with spectacles on their noses, placed along a desk which sustained instruments of music, where they executed a discordant symphony, seemed to give delight to the audience. *A very different sentiment possessed our soul*, and we conceived, at that very instant, the possibility of realising, to the advantage of those unfortunate people, the means of which they had only an apparent and ridiculous enjoyment. ‘The blind,’ said we to ourselves, ‘do they not know objects by the diversity of their forms? Are they mistaken in the value of a piece of money? Why can they not distinguish C from G in music, or an A from a B in orthography, if their characters are rendered plain?’ ”

This is the simple story of the beginnings of systematic education of the blind—apparently prompted by an everyday and commonplace incident, but how far-reaching in its beneficent influence who can tell?

TYPES

It is a somewhat remarkable coincidence that in 1774, almost contemporaneously with the essay by M. Diderot above quoted, and which was written in France, an article should appear in the *Edinburgh Magazine and Review*, written, so to speak, on the same “text,” with a similar end in view, and it is, to say the least of it, strange that for fifty years after Haüy’s *début*, we hear nothing of any advance or progress in the matter of suitable types for touch reading.

The type used by Haüy was a kind of italic, and in the various institutions for the blind, which quickly followed the founding of that in Paris, a similar type was used.

Not till 1831 is any change found: then James Gall of Edinburgh introduced his angular roman type. He printed several introductory books, and in 1834 published the Gospel of St. John. About this time the Royal Scottish

Specimen
d'impression en
relief de l'instit-
tut de Paris

A B C D E F G H I K
L M N O P Q R S T U V
W X Y Z

a b c d e f g h i j k l m n o
p q r s t u v w x y z

1 2 3 4 5 6 7 8 9 0

Imprimé à bruges

THE ABOVE IS A FACSIMILE OF TYPE USED BY VALENTIN HAÛY.

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Society of Arts offered a prize medal for the best and most suitable raised type for printing books for the blind, and Gall was an unsuccessful competitor, the prize being awarded to Dr. Edmund Fry, whose alphabet consisted of the ordinary capital letters, denuded of their small strokes.

In a work "The Education of the Blind," * published in 1837 by himself, Gall says (Preface): "The blind are now able to read nearly as fluently as those who see. Books are now printed for their use. They are also able to write letters to each other by post, and to read what is thus written."

On page 9 he continues: "Although Mr. Gall in the present century (1837) has revived the printing for the blind, he was not the first who thought of it. It was attempted in Paris during the last century, and failed, not from any impossibility in the thing itself, but on account of the alphabet which was employed for the purpose. Mr. Gall, perceiving that angles were more easily felt than rounds, and that the outside of the letter was more easily felt than the inside, modified the alphabet into its simplest form, throwing the characteristics of each letter to the outside, and using angles instead of rounds. After a long-continued laborious and expensive series of experiments, by means of blind persons, he has produced the present alphabet, which may now be considered the most simple, the most tangible, and therefore the most perfect alphabet which can be constructed for the blind." †

Mr. Gall is so carried away with his own enthusiasm that he is not content to say his is the best alphabet *as yet* constructed for the blind, but the most perfect that *can be*. Further on in the little work just quoted, he states: "The blind are able to skim over the letters with great rapidity in reading. . . . So great is the facility with which the blind are able to feel the letters, that already they can read books printed with the *common English size of type*. *This is the same as is used in pulpit Bibles and*

* Reprinted by Sampson Low, Marston & Co., Ltd., 1894.

† See page 15.

*in papers printed for the Courts of Law!** And, although this surpasses all that was formerly hoped for, even this is not to be considered the smallest size which the blind will be able to read. . . . And so very plain do the letters appear to them, that they can read with a stout glove upon the hand, or a piece of linen laid upon the book."

Who will deny the existence of a sixth sense after this?

Now, turning to the evidence of a contemporary and eye-witness of these *marvellous feats* of the blind in regard to Mr. Gall's type, it is seen what he has to say regarding them. The quotations are from "Observations on the Employment and Education of the Blind," by Thomas Anderson (1837), Manager of the Asylum for the Blind, Edinburgh.

"Mr. Gall (a printer), of Edinburgh, was the first in this country who directed the attention of the public to the subject [viz. Printing for the Blind]. In 1831 he published some elementary works in what may perhaps be called the angular roman character—the roman, with all the circles turned into angles. When these books came out, he requested that some of the boys belonging to the Asylum in Edinburgh might be allowed to take lessons from him. This the directors with pleasure immediately granted: and, I think, three if not four of our sharpest youngsters were under his care twice or three times a week. No restriction as to time was laid upon him—he had them quite at his own disposal—and they continued with him for some months. But, even with all Mr. Gall's own attention—and, I am sure when I say so, every security is given that all that perseverance, kindness, and ardour in a favourite pursuit could do was done in their case—yet the result was nothing more than their being able to make out letter by letter, and a few short words, some of them hardly that. As to anything like '*reading*' in the common acceptation of the word, it was out of the question, Mr. Gall himself being judge. I am sure that gentleman will bear me out in saying that a fairer specimen of what the working blind can do could not have been found. They

* The italics and exclamation are ours.—*Ed.*

were boys of excellent parts, varying from fourteen to twenty years of age, and had been shorter and longer in the Institution, so that even a variety of finger delicacy might have been reasonably expected amongst them. They were tried under his own eye—without limitation as to time—and I will leave it to Mr. Gall to say to what the result amounted. . . . When the Gospel by St. John appeared in 1834, many benevolent individuals who had subscribed for it offered their copies to the directors for use in the schoolroom. This was gratefully accepted, and, to leave nothing undone, they directed a second trial to be made under the care of Mr. Robert Mylne, the teacher at the Asylum, himself blind. Six boys were daily engaged on it for as many months, and yet, with all the attention possible, the result was not one whit better than the first one. Both teacher and taught were tired out of measure. They often averred they could get the Gospel by heart in half the time, and I don't doubt it. Mylne himself was very desirous of benefiting by this mode of instruction, and took a copy of the work home with him, but although able, like the others, to do a little, yet it was nothing when compared with *reading*. . . .

“Thus, then, there were only *five* or *six* ever engaged on this study at the institution alluded to, while the number of inmates amounted to one hundred and ten or thereby. Yet in a report published by the Society of Arts at Edinburgh is it stated: ‘Mr. Gall has obtained ample testimonials from the Directors of the Edinburgh, Glasgow, and London Asylums, as to the efficiency of his alphabet, and *his success in teaching the blind* TO READ by means of it in these institutions.’ Confining myself, of course, to the first-mentioned, I cannot but express my surprise that any such statement could have been made, when not more than *six* were at any time engaged in the pursuit, and the result being as I have stated it.

“ . . . Another trial, such as I have just detailed, took place at the London School. It was commenced by Mr. Gall himself as detailed in his ‘Literature for the Blind,’ and carried on so far, but was soon after relinquished by the directors. As the reasons have not appeared before the public, I can only state the fact.

“Mr. Gall's publications were also adopted at the Asylum

at Glasgow, and, by the reports of the examinations, promised to realise all the hopes that had been formed of them, when, about six or eight months ago, they were relinquished for a character which was recommended some years ago by the late Dr. Fry of London, to the Society of Arts at Edinburgh. This, Mr. Alston, the treasurer of the Asylum adopted, and set up a press in the establishment, and has printed several works in the character alluded to, viz. roman capitals (now commonly known as Alston's type).

"The character, however, does not seem to me to have as much to do with the matter as has been represented. THOSE ENJOYING SIGHT ARE TOO APT TO THINK THAT WHAT APPEARS SO NICE TO THE EYE MUST THEREFORE BE THE BEST FOR THE BLIND. This by no means follows: and, so far as experiment goes, Mr. Gall's triangular (?) roman is as good as Dr. Fry's capitals. . . .

"Under the idea that so much depends on the character, we have no less than five * different characters out already. . . . There is Gall's, the Bostonian (roman large and small), Philadelphian (similar), Lucas's (stenographic), and Fry's."

Thus began the battle of the types, which has ever since been waged with greater or less fury, and which, so far as Braille is concerned at any rate, is still raging. It is fairly proved, however, that the earliest attempts to teach reading by touch, both in England and France, were more or less failures, owing, doubtless, to the reason asserted so wisely and prophetically by Anderson in the sentence quoted above in small capitals. As opposed to this opinion, the reader may refer to Gall's publication, as showing how absolutely he differed from this view.

"Any attempt to introduce a literature for the blind would certainly be ruined by founding it on an arbitrary alphabet. In the first place, we must keep in view the perpetual sentence of banishment from the understandings and sympathies of the public generally, which, practically

* As a matter of fact there were seven, for Moon's and Frere's types were then in existence, though evidently unknown to Anderson.

speaking, would be pronounced against it from its very birth. No man can ever be expected to feel so much interest in a thing which he must learn before he can understand, as in that which is plain to his *eyes* and to his understanding. . . .

“No one but professed teachers of the blind would, in all probability, ever attempt to learn it. This would be a most serious disadvantage to a literature which is intended, not merely for blind asylums, but for every parlour and cottage where there is a person blind. . . . An arbitrary character will be exceedingly repulsive, more especially at the commencement. . . .

“There is an awful insecurity attending any books which might be printed in an arbitrary character, and as great an insecurity attending the learning to read them. . . . The adoption of an arbitrary character would ruin all prospects of the system of epistolary correspondence between the blind and their friends, etc., etc.”

How truly is the wisdom of to-day the foolishness of to-morrow! Which of these awful calamities has followed the adoption of the arbitrary character introduced by Louis Braille?

Frere and Moon both adopted the return line principle—that is, reading one line from left to right, and the next from right to left. Frere reversed his characters in the return line, but not so Moon.

The Boston character is still used in some American schools, as is also the Philadelphian, which is almost identical with Alston's. This latter, until quite recently, was used at the Worcester College for Blind Sons of Gentlemen.

Lucas's type, introduced in 1838, was adopted by the London Society for Teaching the Blind to Read, at their establishment at Swiss Cottage, London, and a press set up for the production of literature in that type. Only of late years has this been discontinued.

It is unnecessary in this brief work to remark further upon any of the above types except Moon's, which, on account of its simplicity, easy acquirement, and boldness of relief, is so suitable for the blind whose fingers are hardened

GALL.

◁ ▷ < ▷ ↵ ↵ ◊ ✎ i
 j k l m n o p q r
 s t v v w x y z .

ALSTON.

A B C D E F G H I J K L M N O
 P Q R S T U V W X Y Z &
 1 2 3 4 5 6 7 8 9 0 . : ; . _ ! ? ()

LUCAS.

• ◊ ◊ ◊ ◊ \ ◊ ◊ i
 A B C D E F G H I
 j k l m n o p q r
 s t u v w x y z
 LL SS FF TH SH PH CH NG WH GH &c.
 1 2 3 4 5 6 7 8 9 0

MOON.

Λ ℓ C ◊ Γ ρ ρ o i
 A B C D E F G H I
 j k l m n o p q r
 s t u v w x y z &

SPECIMENS OF ALPHABETS.

by toil, or for those elderly people who only require books as a means of passing the time, which would otherwise hang heavily on their hands. There will probably always be a considerable demand for books in this pre-eminently useful line type, and all teachers of the blind are earnestly recommended to make themselves familiar with it. The printing and publishing of "Moon" books is personally superintended by Miss Adelaide Moon, daughter of the late Dr. Moon, the honoured inventor of the type; and any inquiries addressed to her at 104, Queen's Road, Brighton, will be kindly and promptly replied to. Dr. Moon's type has already been adapted to some four hundred foreign languages and dialects, and of late years the publishing of the Scriptures in these has been taken up by the British and Foreign Bible Society. (*See also* p. 35, "Moon's Typewriter.")

"BRAILLE"

This is the system of embossed type which, in one form or another, is used practically universally for purposes of education; it was invented or adapted by Louis Braille, first a pupil, then a teacher at the Institution Nationale des Jeunes Aveugles, Paris. *Adapted*, because his invention was only an improvement—a very great one, all will admit—on a previously existing point alphabet introduced by an artillery officer, M. Barbier. Barbier's was in principle the same as Braille's, but his full number of points was twelve instead of six, so that his letters were unwieldy, and the space covered by them inconveniently large. Braille at first soldered strips of metal across Barbier's writing-frame, so as to cover up one half of the cell for each letter, and by this means acquired the power of writing his own more compact alphabet. This was in 1829, and although, as we have said, "Braille" type is now the veritable *lux in tenebris* of the blind, it was for many years rigorously opposed as an arbitrary and impossible type. Both pupils and professors in the Paris school were not slow to see the

immense superiority of it over the roman letter, but the school authorities would not change their system ; though Braille was allowed to teach it out of school hours and unofficially. Indeed, it was not till 1854, two years after the death of its author, that the “ Braille ” system was officially adopted at the Paris school. In our own country it fared no better, for, although introduced into England about 1868, it was not until fully twenty years later that it was anything like generally accepted in blind institutions, and by the reading blind of the country. In Scotland especially it was bitterly opposed, more particularly by the home-teaching societies, and even at the Edinburgh Institution it was only after years of persuasive entreaty that the then manager, Mr. William Martin—so well known as the introducer of kindergarten for the blind—succeeded in getting the teachers at West Craigmillar to give “ Braille ” a trial.

It has been stated on good authority that Louis Braille, who was above all, and first of all, a musician, adapted Barbier’s shortened character to form a musical alphabet, and that the well-known first, second, third, and fourth lines of Braille signs—at least so far as the last seven in each line were concerned—had their origin in this way. This view would appear most reasonable, for it is much more likely that the *four lines* had their origin in the requirements of the efficient representation of quaver, crotchet, minim, and semibreve, than that a purely arbitrary arrangement of dots for an alphabet and some contractions should so excellently and accidentally suit the necessities of the musical notes.

Another argument in favour of this view is the fact—which has of late been frequently remarked upon—that a genius such as Braille should have formed an alphabet without any relation between the number of dots used in the letter and the frequency of that letter’s recurrence in ordinary literature. No ; Louis Braille considered the exigencies of ordinary literature secondary to those of music, and his genius stands justified to-day. There are many variations of the Braille alphabet and contractions

signs, but only one musical alphabet, and that practically as he made it, still unchanged in all parts of the world where Braille of every kind is used.

Let any one who doubts the above theory write out the last seven characters of line 1—that is, d to j*—and notice what a distinct relationship there is between the various characters, whether looked at vertically, horizontally, or downside up, always the same seven, the perfect number ; and we think he will be convinced that the facts are as stated.

BRAILLE LITERATURE †

“Those who only know the state of the education of the blind as it at present exists can scarcely conceive the utter chaos in which this whole subject was involved before the formation of the British and Foreign Blind Association in 1868. The usual plan up to that time was for some one who was in comparative ignorance of what had been done by others to start a new system, which was taken up by philanthropists, who had still less knowledge of the subject. Subscriptions were raised, and the Babel of systems was increased by a fresh one. In this way it had come to pass that the Bible, or the greater part of it, had at that time already been printed in English in five different systems, while there was scarcely any other standard work published except in the type introduced by Dr. Howe, of Boston, and this was so small that probably not one blind adult in fifty could learn to read it with any degree of comfort. The wasteful extravagance of thus printing the same book in so many systems was not the only inconvenience arising from this want of harmony. Another evil was that the blind had to learn to read by the character which happened to be in favour at the institution where they received their education, and, on leaving, they found that, if they were to obtain the benefit of the few books that had been embossed, they had to learn two or three fresh systems, and perhaps discard altogether the one which it had taken them years to acquire. The two main causes of this lament-

* See p. 165.

† Dr. Armitage's book on “The Education and Employment of the Blind,” p. 37 *et seq.*

able state of things seemed to be, as above stated, that there was an utter want of harmony of action, and that inventors of systems and managers of institutions generally HAD THEIR EYESIGHT, AND, MISLED BY THIS SENSE, THEY COULD NOT UNDERSTAND OR ENTER INTO THE REAL WANTS OF THE BLIND. It is a curious and instructive fact that the two systems which are now in most favour with the blind themselves, and which have most vitality in them, are due to two blind men, M. Braille and Dr. Moon.

“Previous to 1868 it had from time to time been attempted to remedy the state of confusion then existing by holding conferences, the various institutions being represented by their managers or secretaries. Each member was in general strongly prejudiced in favour of the system which happened to have come under his own notice; failure was consequently inevitable. Among the more intelligent of the blind the opinion had long been gaining ground that, for any good result to be obtained, the question must not be settled *for* the blind, but *by the blind themselves*.* This idea strongly impressed itself on the minds of two or three blind gentlemen, and the result was the formation of the British and Foreign Blind Association, which, though numbering among its members many blessed with sight, has remained true to the axiom that the relative merits of the various methods of education through the sense of touch should be decided by those, and those only, who have to rely upon this sense. The members of the Executive Council are therefore blind, or so nearly so as to be obliged to rely on the sense of touch, and not on that of sight, for the purpose of reading. Most members were also able to read at least three systems of raised letters by touch, and were not pecuniarily interested in any. Some were able to read by every known system, except when, from the extreme smallness of the type, there existed a physical impossibility. They took care themselves to use extensively the methods which seemed to promise well, and they carefully noted the views and wishes of all the intelligent blind within their reach.

“Several members had very extensive experience in teaching among the ignorant and aged, as well as among the more intelligent and young. They approached their work

* See p. 61 (*Hora Jucunda* Union).

with various views, according to their greater or less previous acquaintance with the subject, but with the determination to spare no pains in arriving at the truth. In order to make use of much valuable information thus attainable, the Council, at an early period of its labours, requested the attendance of all the intelligent blind within their reach. They took much pains to ascertain exactly their views, and the reasons for the opinions they held. This evidence was carefully noted down at the time and read over to the blind person under examination. At the commencement of each examination the witness was asked by what systems he could read, and books in these systems were then given to him to test his ability. He was only allowed to give evidence upon those systems with which he could thus prove himself to have a practical acquaintance. The information thus obtained was of great value, as it represented a sort of public opinion among those of the blind who had paid attention to this subject.

“Although since 1868 great changes have occurred, and the views put forward are now pretty generally accepted by the blind and their friends, it may be historically interesting to reprint the conclusions then arrived at, as it was only by the persistent advocacy of its views that the Association has at length secured their general adoption.

“ROMAN LETTER.—To take the various systems in the order in which they have been enumerated, the Council naturally first turned their attention to the roman letter, as being that by which all the members had been educated; here the wide difference between the points of view of the blind and seeing was at once manifest. In spite of the strongest *à priori* reasons to the contrary, the unanimous decision was come to, that the roman character in all its existing forms is so complicated that it requires long education and great acuteness of touch to read it with ease, and that its universal adoption would be tantamount to the total exclusion of the great majority of the blind from the privilege of reading. The Council have never yet met with any intelligent blind person, moderately conversant with the subject, who was not of the same opinion. The constancy with which the roman letter has been advocated by the seeing patrons and managers of institutions shows

how opposite is the conclusion arrived at by them, and the incessant modifications of it which have been tried prove how difficult is the problem of rendering the roman character legible by touch. The experience of the New World is the same as that of the Old. The small angularised roman letter of Dr. Howe, of Boston, which is used in most of the United States' institutions is probably as good a form as any, and, if printed in a larger size, would not be difficult to feel; in its present size, however, it is far too small, and has signally failed in America.

“Mr. Wait, the Director of the New York Institution, examined 664 pupils, of seven different institutions, as to their reading. All these pupils used the Boston type. He found that out of this number one-third were good readers, one-third read slowly by spelling out the words, and one-third failed entirely.

“In the Missouri Institution, where the Braille system was used, two-thirds learned to read fluently, one-third by spelling, while none failed; and it must be borne in mind that those who learn to read by this system also acquire an admirable method of writing.

“In the Paris School the blind have had their own way, and the roman type is now only regarded as a literary curiosity, not suited to the every-day wants of the blind. This is, no doubt, mainly due to the fact that all the professors in this school are blind. It has often been urged that the blind ought to employ the same character as the seeing, in order to receive assistance when reading.* This argument might be of some weight if no simpler character existed; but where the choice lies between a character to read which the blind man requires assistance, and one which is so simple that he can read it by himself, there ought to be no doubt as to the choice. Another common, but equally fallacious, argument is that by adopting a different character from that used by the seeing there is danger of the isolation of the blind being increased; this is not feared by those whom it is intended to benefit. A man is isolated by everything which renders the acquisition of knowledge difficult and tedious, and his isolation is diminished by everything which facilitates his power of self-education. The best type for him to use is evidently that which he can read most

* See p. 13, par. 5 (“Gall”).

fluently and most correctly ; therefore, in the great majority of cases, it will *not* be the roman character.

“ Another reason which operates strongly against the adoption of any so-called arbitrary character in our blind institutions is the trouble that it is likely to give to the seeing managers and teachers ; for the adoption of such a character involves the necessity of the teacher taking the trouble to learn it, and in the case of the Braille character there is this further difficulty, that reading it is fatiguing to the *eye*. This objection to arbitrary characters is for obvious reasons scarcely ever stated, and is probably not fully recognised by the managers and teachers themselves. It, nevertheless, consciously or unconsciously to themselves, influences their views very materially. Of course every one will assent to the abstract proposition that IN INSTITUTIONS FOR THE BLIND SEEING TEACHERS AND OFFICIALS ONLY EXIST FOR THE BENEFIT OF THE BLIND PUPILS, and that such institutions are bound to adopt that method of education which is proved to be the best for the blind, whether most convenient to the seeing teachers or not. But, though the truth of such a proposition is beyond all dispute, we are all apt to dislike whatever gives us trouble, though we may at the same time be quite unconscious that the main cause of our dislike is the fear of personal inconvenience.

“ MOON.—Moon’s system has qualities which make it very generally useful. It is fully spelt, and consequently can be used for primary education ; and at the same time, in their present size, the letters can be felt by the dull, the aged, and by those whose touch has been impaired by rough work, while the approach of many of his characters to the shape of the corresponding roman letters makes the first step more easy. It is much to be regretted, however, that along with these obvious merits there are also some serious defects. Many letters are perfectly arbitrary, and though in some cases this could not have been avoided, yet in others a closer adherence to the roman letter would have been possible. The non-reversal of the letters in the return line is a serious defect, and the absence of a sign to indicate a divided word at the end of a line is inconvenient.

“ SHORTHAND SYSTEMS.—The advantages of shorthand to the blind are very great. For rapid and pleasant reading

the finger ought, as nearly as possible, to imitate the eye, by taking in a whole word at a glance ; but this cannot be done when every letter is printed ; as, from the comparative coarseness of the sense of touch, the letters must be on a large scale, and of these the finger can only perceive one at a time. Some sort of shorthand seems to be the only solution of this difficulty ; but the two forms in use in 1869, when this examination took place, are unsuitable for educational purposes, as Lucas's is apt to produce bad spelling, and Frere's, being phonetic, disregards orthography altogether. However desirable it may seem to many to adopt phonetic spelling universally, the blind, for many reasons, must not lead the way. All blind children should therefore learn spelling in the ordinary way ; if afterwards it should seem desirable, they may in addition be taught shorthand. For the use of adults neither of the existing systems is quite satisfactory. Lucas's characters are not sufficiently distinct, the dotted lines and dotted half-circles being too similar to the same signs without dots. His use of the double letters for numbers is objectionable, and he has made a great mistake in not adopting the return line, which adds much to the ease and comfort of reading. Frere's characters, on the other hand, are the neatest and most tangible of all that have ever been invented for the use of the blind. His return line is perfect, but his total want of punctuation is a serious objection, and the rules are too complicated to be understood without oral teaching, and, as a matter of experience, they are seldom properly learned. The consequence is that most readers by this system do too much by guess-work—though to an educated person, well acquainted with the book he is reading, and only wanting a slight guide (as in the case of the Bible), there is probably no system by which, when it has been acquired, reading can be accomplished with equal comfort and rapidity.

“ It would be much to the interest of the blind that their shorthand system should spring out of, and be closely connected with, the full spelling method ; so that it would be easy to pass from one to the other without having to learn a new character.*

“ POINT SYSTEM.—The great advantage of a point system

* See p. 27 (“ Braille Shorthand ”).

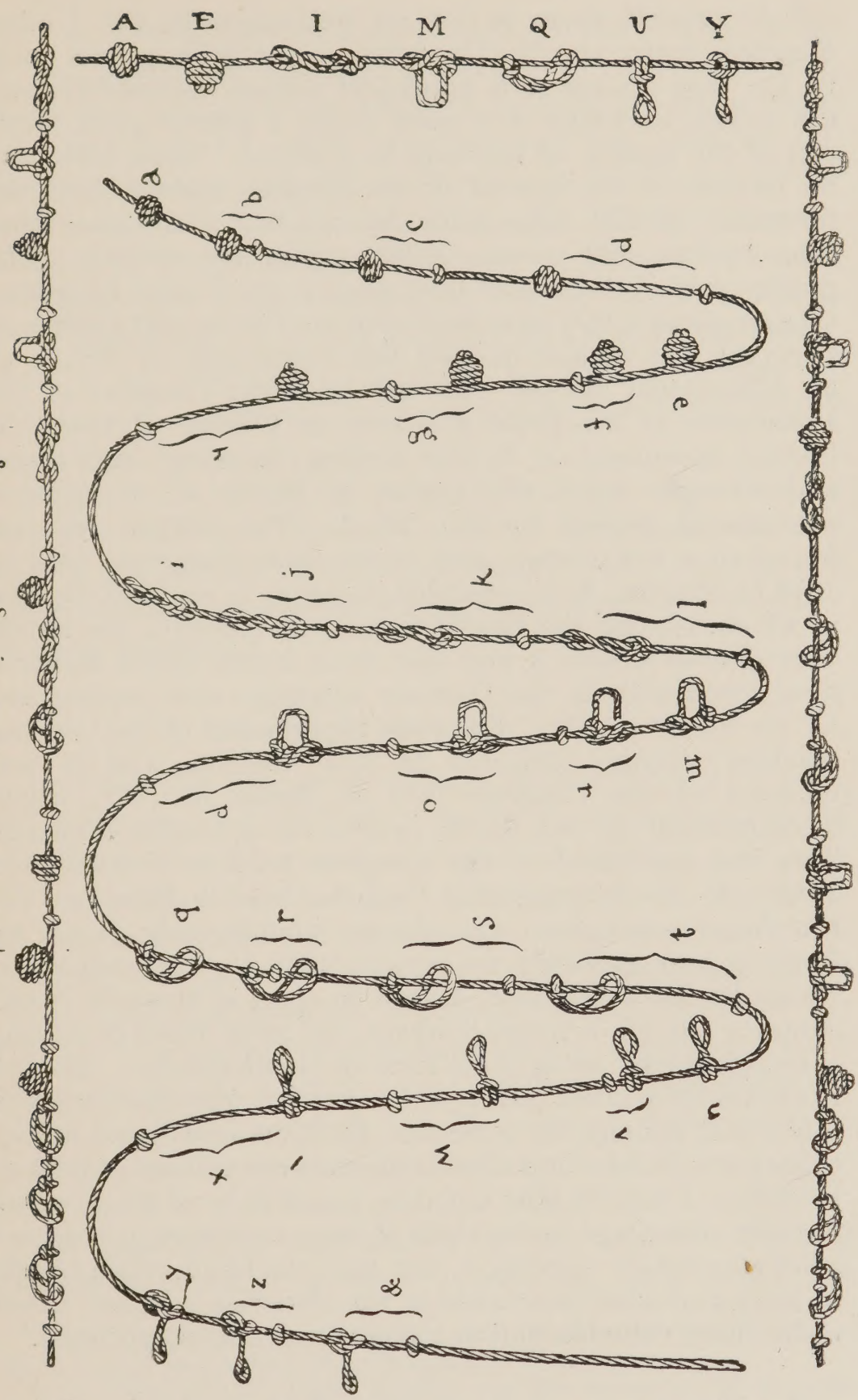
is the extreme facility with which it is *written*, while it is at the same time easily read ; and a special recommendation of the Braille method is, that out of the ordinary Braille alphabet there naturally springs the best form of musical notation in use among the blind.

“ By this means a saving of 25 per cent. in space is effected. There is a corresponding gain in the rapidity of reading, while correct spelling is not interfered with. Another great improvement has been the utilising both sides of the sheet, both in printing and writing, the lines on one side corresponding with the intervals on the other. This effects a further saving of 20 per cent. in space, and greatly adds to legibility. This method has been followed for many years by the Association in all their publications, whether printed or written. When first introduced it was asserted by many that interlined printing would not be durable ; the experience of many years has, however, shown that when proper paper is used interlined printing lasts well, even in books used as class-books in schools, which is the severest of all tests.*

“ It is pleasant to note that the state of utter confusion which existed in 1869 has now to a great extent passed away. The roman letter is all but abandoned in the United Kingdom for the purpose of reading, and is little taught, except to give the blind an idea of the appearance of the letters used by the seeing. Frere’s and Lucas’s systems are almost things of the past, while most of the blind and their instructors are fast becoming unanimous in the opinion that, for purposes of education, and for the intelligent blind of all ages, the Braille system is to be preferred, while Moon’s system is the best for those whose sense of touch is much injured by hard manual work, or for those adults who, from want of previous education, or from any other cause, are satisfied if they can read, and do not feel the want of writing. In 1868, when the Association was founded, there was not a single institution for the blind in the United Kingdom in which the Braille system was used, and the number of individuals who knew it probably did not exceed twenty. It is certainly extraordinary that such complete ignorance should have existed of a system which might have been seen in full operation by going over to Paris.

* See p. 40, par. 3 (“Interpoint”).

Specimens of String Writing.



“ At present there is not an institution in the United Kingdom where the Braille system is not more or less used. In the best schools it is employed almost exclusively, and the extent to which it is used forms a pretty good rough test of the quality of teaching in a school. Some idea may be formed of the spread of the Braille system since the formation of the Association by the fact that since that time it has sold about 20,000 styles for writing. The greater part of these have been used in the United Kingdom, though about 1,000 have been sent to France and Germany. Germany has at last realised the importance of Braille as an educational system. In 1873 the first Congress of the Instructors of the Blind was held at Vienna. I there exhibited specimens of Braille writing, printing, and maps, and strongly urged the claims of Braille as a universal educational system for the blind. The subject was referred to a Committee, and at the next Congress, held in 1876 in Dresden, it was decided to adopt a modified Braille, in which, though the Braille frame was retained, the letters were altered in such a way that those letters which occurred most frequently in the German language were represented by the fewest points. The most experienced of the German teachers strongly objected to this decision, and it was reversed at the Congress held in Berlin in 1879, which recommended the old Braille system for universal adoption. This was confirmed at the Congress held in Frankfort in 1882. At the International Congress held in Paris in 1878 the same conclusion was almost unanimously come to. There is now probably no institution in the civilised world where Braille is not used, except in some of those in North America ; in all of these, however, the great value of writing is recognised by using some form of point system. Though the blind have much reason to be satisfied with this progress, much still remains to be done. In China and Japan and in other parts of the world there is an immense amount of work to be done. I believe that not only would it be of the greatest possible advantage to the blind of these countries to receive a good elementary education, but that the blind, when taught to read, and when instructed in the Christian religion, would make most valuable native missionaries and colporteurs.”

Mr. Murray, one of the Scottish Bible Society's mission-

aries at Peking, has tried the experiment on a small scale ; it has proved so far most satisfactory. The idea of a blind man being able to read and write is so new in these countries that the people crowd around him, and he can obtain a hearing and sell the Scriptures, where no seeing man would have been listened to. Mr. Murray has commenced to print the New Testament in Chinese by means of frames and plates supplied to him by the Association. The Chinese writing for the seeing being a sort of shorthand, there is no objection to using it for the blind ; and by this means a great amount of space is saved, amounting probably to over 100 per cent.

Many of the dialects of India, China, and other Eastern countries have now been reduced to " Braille," and the British and Foreign Bible Society have a large staff engaged solely on the work of producing the Scriptures in " Braille " in these languages.

BRAILLE SHORTHAND *

In 1895 the Editor of *Hora Jucunda* offered a prize of £5 for the best method of Braille shorthand writing for the blind. Some excellent competitive schemes were sent in, and, after these had been submitted to Dr. Campbell, of Norwood, the late Mr. Buckle, of York, and other Braille experts, the prize was awarded to a collaborated effort which emanated from the Birmingham Institution for the Blind. This system of shorthand is now taught in all the principal schools, and by means of a neat and ingenious little machine invented by Mr. Henry Stainsby (late secretary and general superintendent of the above institution, and now general secretary of the British and Foreign Blind Association) and known as the Stainsby-Wayne † shorthand machine, a blind typist can, with ease, take

* The " Key to Braille Shorthand " may be obtained from the Royal Blind Asylum and School, West Craigmillar, Edinburgh.

† Mr. Alfred Wayne, of Birmingham, was the maker of the machine, under Mr. Stainsby's direction. The cost of the machine is about £6.

down notes at the rate of 110 to 120 words per minute, and is thus provided with a most valuable adjunct to the ordinary typewriting machine, so useful in fact that many blind girls have, so equipped, been enabled to secure and retain excellent appointments as correspondence clerks in business offices.

Previous to the invention of Braille shorthand

THE EDISON-BELL PHONOGRAPH

had been utilised for the purpose of dictating letters to blind typists, who had been trained to do correspondence for the office of the institutions where they were located.

The honour of being the first to utilise the phonograph in this way for the blind belongs to West Craigmillar Institution, Edinburgh, and practically all the correspondence of the establishment was so dictated for many years. But the advent of Braille shorthand, and the very significant fact that business men in search of correspondence clerks would not be likely to supply them with phonographs at £30 apiece, as they then were, caused the discontinuance of this machine, except in one or two isolated cases.

Braille shorthand may be written on the ordinary Braille frame, but the speed attainable does not, of course, nearly approach that of the Stainsby-Wayne machine. The paper for the latter is in the form of a long narrow strip, about one inch wide, and rolled into the form of a bobbin. This is fixed on a spool carried by the machine, and passes automatically over six little punches actuated by six separate keys as these are pressed in the required combinations. The dots are made upwards, and are thus readily felt by the operator without turning the paper over. The embossed portion passes into a receiving basket and, when finished, is either rewound on to the reel and read as required, or used straight from the basket in the best way the ingenuity of the operator may devise.

WRITING

Valentin Haüy and his contemporaries, as well as Gall and his contemporaries, all claimed to teach the blind to write, but their methods were slow, laborious, and very unsatisfactory, the system, if such it can be called, being to form their respective characters by means of a stylo in their reversed form on a sheet of paper placed upon felt, rubber, or some such yielding substance, thereby raising them on the other side, the writing, of course, being done from right to left.

The first idea of a mechanical apparatus for writing by the blind appears to have been that of Alston, who introduced a device which consisted of square pegs about $1\frac{1}{4}$ inch long and $\frac{3}{8}$ inch square, on one end surface of which he arranged short sharp pins in the form of the roman letter, one letter on each peg, the peg being notched on one side to denote the proper position of the letter in using. By means of an ingenious frame and ruler—the frame bedded with flannel or baize upon which the paper was laid—these points were then pressed firmly upon the paper, and piercing it, threw up in clear relief the desired letter on the obverse side, so that it could be read with ease. This system had the advantage that letters written by means of it could be read either by blind or sighted, and it was often used for addressing wrappers or envelopes. It remained in vogue for many years, and is used even yet.

During the last fifty years a great variety of inventions has been brought out for enabling the blind to write ordinary characters—generally a form of italics—in pencil, for communication with their sighted friends. The most satisfactory, as well as the neatest and least cumbersome of these, was the Guldberg frame, which emanated from Copenhagen, and was of a size convenient for carrying in the pocket. Really beautiful work could be produced by means of this little apparatus by a careful writer, and quite a respectable amount of speed could be achieved with practice.

This method is a vast improvement upon Gall's little strip of brass with square openings in which the roman characters were formed by the writer. Other mechanical writing-frames of a more or less similar nature are Moon's, Wedgwood's Noctograph, Thursfield's, Pooley's, and Levitte's.

Valentin Haüy used glutinous ink, with which he wrote a very bold hand upon paper ; over this writing, sand was dusted, which adhered to the letters and formed a rough sort of relief writing. He admits himself, however, that this was more or less a failure.

Dr. Moon brought out paper crossed with raised lines, between which it is easy, for those who have learnt previous to losing their sight, to write ; whilst the British and Foreign Blind Association supply a corrugated piece of cardboard on which the paper is laid ; the grooves are felt through the paper, and are quite a sufficient guide.

The latest idea on these lines, however, is that adopted by the writer. It is by far the simplest, and at least as good as any. Thin twine is stretched tightly across the face of an ordinary Braille frame, in lines about half an inch apart, by means of small holes drilled through the board about one inch from each side. A coating of thin glue is then brushed over them, and, when dry, the apparatus is ready for use, the writing-paper being fixed by the clip at the top provided for holding the Braille paper.

The twine is distinctly felt through the paper as raised lines, quite a sufficient guide for any one to write who has learnt to do so before becoming blind. This treatment does not in any way detract from the use of the board for Braille work, as the twine in no way interferes with the movements of the brass guide.

FOUCAUD

Louis Braille and M. Foucaud together invented a machine for writing, which was until recently used for that purpose. It consisted of a number of converging wires, so arranged

that, when pressed down in varying order, the points struck on a sheet of paper under which was a carbonised sheet. Letters consisting of dotted lines were thus produced. The writing was very slow and difficult to learn.

HUGHES'S TYPOGRAPH

This was invented many years ago by Mr. Hughes, of Henshaw's Blind Asylum, Manchester. It produced very good printing, and was easy to learn, but it was very expensive, and cannot now be procured.

TYPEWRITERS

The modern typewriter has, however, settled the question as to what is the best means for a blind person corresponding with his seeing friends, or producing sighted writing for other purposes. Typewriting is now systematically taught as part of the ordinary curriculum in all the best schools for the blind in the world.

Edinburgh was probably the first to introduce it, and was certainly the first institution which produced a blind typist who was successful in obtaining an appointment as correspondence clerk in a business office.

Birmingham followed quickly, and soon took the lead, forming a special class for training clerks for commercial work, and developing every possible resource in this direction, including instruction in telephoning, shorthand, and bookkeeping ; so that the school at Edgbaston now stands at the very head in all matters connected with typewriting for and by the blind. The favourite machine there is the Remington.

At the Royal Normal College, Upper Norwood, typewriters are numbered by the score, Dr. Campbell having very advanced, but sound, views on the value of typewriting as an educational medium, apart altogether from its commercial aspect. The machine most in vogue at Norwood is the Hammond, its automatic stroke rendering it particularly suitable for use by the blind.

At Henshaw's Blind Asylum there are in use the Hammond, Yöst, Smith Premier, Underwood, and Remington. In the opinion of experts any really good standard machine may be readily understood and worked by the blind, but it is advisable to choose those which have a simply adjustable ribbon attachment, if they be *ribbon* machines.

At first embossed letters affixed to the keys were used, but these were soon discarded in favour of the absolute touch principle, now almost universally adopted. Dr. Campbell still, however, adheres to the method of fitting the keys at certain intervals with felt pads, as a guide to position.

It may be interesting to add that at Birmingham for several years a typewriting office has been carried on in the city, in connection with the Institution, and here a number of blind typists earn a good living by doing work for the public. There are now quite a number of low-priced typewriters on the market, quite suitable for private use by the blind; of these the Moya, made by the Moya Typewriter Co., Leicester, is probably the best; price about £4.

BRAILLE WRITING

It is quite unnecessary to describe here the ordinary Braille frame, with its brass guide containing two lines of cells; but it must be remembered that this frame is the product of evolution. The original method of writing Braille—as other embossed script—was to impress it by means of a stylo on paper placed upon baize, rubber, soft leather, or other yielding substance, the guide consisting of a strip of brass containing one or two lines of oblong holes of the required size, similar to the upper half of the ordinary Braille brass guide.

Later, a frame was brought out in Paris consisting of a slab of zinc, corrugated on one side, with grooves run from side to side and equally distant, from top to bottom. In this also the guide was similar to that used on the felt or

rubber bedded frames. These, however, will only allow of writing on one side of the paper, but are still used in France, and in some English schools.

A great variety of pocket frames has also been produced, and they have proved very useful to those blind persons who require to take notes, etc.

Mr. Menzel, of the Hamburg Blind Institute, has lately invented an excellent Braille frame made entirely in zinc, by means of which Braille may be written with perfect ease and accuracy in a book. It is made in several sizes, the smaller of which are quite convenient for the pocket.

The same gentleman has invented quite a number of useful helps to blind education, including mathematical instruments, geometrical designs, etc. He will be glad to send his catalogue of such on receipt of request for same. His address is Mr. Menzel, Blinden Asyl, *Hamburg*, Alexanderstrasse 32.

Mr. Alfred Wayne, of Birmingham, has also produced a variety of pocket and other Braille frames, mostly in brass and nickel, and quite excellent for their purpose.

BRAILLE WRITING-MACHINES

Braille typewriters, as they are often termed, followed as a natural course in the wake of typewriting machines for the sighted. The variety of these is not quite so great in the former as in the latter, but it is large enough to preclude the possibility of mentioning them all here. One of the earliest, and still one of the best, is the Hall machine* invented by Mr. Hall, formerly a teacher in the Philadelphia School, and manufactured and supplied by Messrs. Harrison & Seifried, Chicago. It is a very strongly built machine, measuring only twelve inches by eight, and about four high. The dots are made by depressing the proper combinations of six keys, which are arranged in two groups of three, somewhat resembling the black keys of a pianoforte.

* May be obtained from the British and Foreign Blind Association, price about £3 3s.

The dots are made upwards, and may be read by the finger immediately the impression is made. Either close line or interlined Braille may be written on this machine, the cost of which is \$13.

Of German machines, probably the Kleidograph is the best known.

Mr. Wayne has brought out several Braille writing-machines, apart from the shorthand machine : one of which resembles an ordinary Braille frame, the writing being done by a set of punches worked by six keys affixed to a travelling bogie, which moves across the paper one notch or letter space at a time, as the keys are depressed. The cost of this excellent and efficient instrument is about a guinea.

DR. MOON

William Moon, son of James and Mary Funnel Moon, was born at Horsemonden, in Kent, on December 18, 1818. His father died whilst William was still in his infancy ; but his mother, from whom he inherited an indomitable spirit and perseverance, lived to the advanced age of ninety.

His whole career is a proof that "impossible" is a word which should be used with much discretion.

When only four years old he lost the sight of one eye through scarlet fever. The sight of the remaining eye was also seriously affected, so that at school he could only get his lessons by the aid of his fellow pupils. At the age of twenty-one, in spite of many surgical operations, he became totally blind.

Losing no time in vain regrets, he gave his attention to mastering the various systems of reading for the blind, including Frere's ; this done, he began to seek for and teach other blind persons at their homes, and later he formed a class, which developed into the Asylum for the Blind, Eastern Road, Brighton.

Whilst engaged in this work, he found that many of his pupils were quite unequal to the task of committing to memory the countless contractions necessary, or of deciphering the embossed roman letters. Reflecting upon this,

the desire arose in his mind to devise some easier method, and after earnest consideration and ingenious contriving he constructed a new system, which has now stood the test of sixty years and is known throughout the world as "Moon's system for teaching the Blind to read." *

He spent his whole life in home-mission work, in fact he may be called the father of home-teaching societies in England, his "dear blind," as he called them, being his first and chief care. He died "in harness" on October 10, 1894, having delivered his usual Sunday address to the blind, in the Town Hall of Brighton, three days before.

In recognition of his life work for the blind, the honorary degree of LL.D. was conferred upon him by Philadelphia University, in May, 1871. He was a Fellow of the Royal Geographical Society, and of the Society of Arts. He was also a member of the Société Internationale pour l'Amélioration de sort les Aveugles, Paris.

MOON TYPEWRITER

At the recent Manchester Conference an ingenious machine, for which a great future is predicted, was exhibited by Miss Moon. By its aid embossed writing in Moon characters is rendered easy and rapid. It is claimed that this machine will be particularly useful for the production of certain books of which only a very limited supply is required.

NEW YORK SYSTEM OF POINT TYPE

This system may, perhaps, be best described as a point system resembling the Braille character turned on its side. The letters of the New York alphabet are only two points in height, and do not exceed three in length, but the contraction system allows of characters several points long,

* In his labour of love for the blind, he travelled all over the United Kingdom, founding home-teaching societies, and in 1882 visited the United States of America on a similar errand: and there his work is continued by his son, Dr. R. C. Moon, of the Pennsylvania Home Teaching Society.

the spaces between the dots being equal to that between the letters.

Dr. Russ, of New York, who originated the method in 1869, and introduced it into the blind institution there, objected to two points in the Braille system: (1) the arbitrary arrangement of the letters into four rows of ten; (2) that Braille's plan makes each letter occupy the same space,

CAPITAL LETTERS.

A	B	C	D	E	F
⠁	⠃	⠉	⠑	⠑	⠉
G	H	I	J	K	L
⠑	⠑	⠑	⠑	⠑	⠑
M	N	O	P	Q	R
⠑	⠑	⠑	⠑	⠑	⠑
S	T	U	V	W	X
⠑	⠑	⠑	⠑	⠑	⠑
Y	Z				
⠑	⠑				

SMALL LETTERS.

a	b	c	d	e	f	g	h	i	j
⠁	⠃	⠉	⠑	⠑	⠑	⠑	⠑	⠑	⠑
k	l	m	n	o	p	q	r	s	t
⠑	⠑	⠑	⠑	⠑	⠑	⠑	⠑	⠑	⠑
u	v	w	x	y	z				
⠑	⠑	⠑	⠑	⠑	⠑				

whether consisting of one or six points, and to remedy this defect he suggested that the letters recurring most frequently in the language should be represented by the smallest number of points. For writing he used a modification of the Braille frame, to suit the altered position of his letters.

That Dr. Russ's system has a great deal to commend it is evidenced by the fact that it took the British and Foreign

Blind Association two years to decide as to the respective merits of that and Braille for adoption in England.

It is interesting here to note that the first interlined stereotyped plates made on the principle which is still in use for Braille printing were made by the British and Foreign Blind Association for the New York system.

The following quotations from Dr. Armitage's book as to the results of the two years' investigation above referred to regarding Braille and New York types are interesting :

“ 1. The gain in space of New York over Braille is said, theoretically, to be 30 per cent. Practically this was found to be somewhat over-estimated. This gain in space is the principal advantage, though there seems also to be a *slight* gain in rapidity of writing. There are, however, some serious disadvantages to compensate for this gain in space.

“ The New York system does not lend itself so well to inter-lining as the Braille, in consequence of the difficulty in distinguishing the characters, which are composed entirely of upper or entirely of lower points.

“ In distinguishing such characters from each other the reading finger is guided, to a considerable extent, by the interval which occurs between the upper or lower points, as the case may be, and the next line, and, as this is not possible with wide lines, it follows that interlining is not well suited to the New York character ; and if we compare the interlined Braille with the close-lined New York, it will be found that the gain in space of the New York has disappeared, while the Braille is far more legible.

“ 2. The New York system is poorer in signs than the Braille, unless characters four points in length are used, and these are too long to be covered at once by the finger, which is inconvenient ; hence, probably, the omission of many punctuation signs in the New York books, which produces inaccuracy and ambiguity.

“ 3. The correction of written or printed matter is very much more difficult in the New York than in the Braille system—a point of very great practical importance.

“ 4. As the letters in Braille are formed from each other by a simple rule, this system is more easily learnt than the New York, where there is no such aid to memory.

“ 5. As the different letters occur with varying frequency in different languages, it follows that, if the New York system were generally adopted, each language would have a different alphabet, and the difficulty of reading foreign languages would thereby be greatly increased.

“ 6. The Braille system is too firmly rooted in Europe ever to be changed ; and it would be a great calamity to the blind to have two point systems, unless the new were greatly superior to the old. This objection applies with still greater force to the musical notation, which ought to be as universal among the blind as it is among the seeing. Great numbers of valuable musical works have already been published in Paris, London, Copenhagen, and elsewhere. These would be illegible by, and useless to, the pupils of an institution using the New York system for musical notation, the adoption of which could only be excused by great superiority, and it is by no means proved that the New York musical notation is even as good as the Braille.

“ About seventeen or eighteen years ago Dr. Russ gave his system to Mr. Wait to be practically tested by the pupils of the New York Institution. Mr. Wait was then, as he still is, the director of that institution. He was at once struck by the vast superiority of a point over a line system, and became an enthusiastic advocate of the only point system with which he had much practical acquaintance. Mr. Wait has ever since been the principal promoter of the adoption of the New York system, and has in no small degree contributed to the popularity which that system has obtained in America. Mr. Wait, believing enthusiastically in the truth of his cause, has pushed it with great energy, and has adapted the system to musical notation. The centralisation of printing in America, which has ensued from the establishment of the American printing-house for the blind at Louisville, while it has conferred great benefits on the United States' institutions, by enabling them to obtain books without payment, has acted unfavourably on a calm and impartial investigation of the subject. The influence there has been strongly in favour of the New York system, and although, theoretically, institutions can order books in whatever type they please, the choice is practically restricted to the New York and Boston types. An institution, therefore, wishing to use the Braille system has no

choice but to print for itself or to import from Europe. In either case it has to pay for its books instead of obtaining them gratuitously, and, in the case of books imported from Europe, it has to pay a heavy customs duty besides.

“Two other point systems were introduced many years ago—one by Mr. Hughes, which has long since become obsolete, and one by the late Abbé Carton, of Bruges, who endeavoured to arrange the points of the Braille letters so as to bear some resemblance to the corresponding roman letters. This similarity, after all, was not striking; but this modification is still used at Bruges, and effectually cuts off the pupils from all the books in their own language printed in Paris.

“INTERLINING.—The plan of printing with lines widely separated greatly increases legibility, and enables old people to read who would have had difficulty in reading with close lines; it also much diminishes the fatigue of continuous reading. The system now generally adopted by the Association, both for written and printed Braille, is to use both sides of the sheet, allowing the embossed lines of one page to occupy the intervals of those of the other. By this means the interval between the lines is utilised, and a saving of space is effected of 20 per cent.

“PRINTING.—When Valentin Haüy first conceived the idea of relief printing on paper, he naturally resorted to movable types on which the ordinary letters were cast in high relief. These types were set exactly like similar type used in printing for the seeing, and the paper impressions were obtained directly from them. This method, which is still used in some countries, both for Braille and the roman letter, has one great disadvantage—that, when the printing of the book is completed, the type is distributed, and, if a fresh edition is required, it can only be printed by the expensive process of setting up the type again. For this reason large editions have to be printed, and, as embossed books are necessarily bulky, much warehouse room is required to store them. To avoid this inconvenience several methods for stereotyping have been introduced. Any embossed printing can be stereotyped by the plan that is often adopted in stereotyping from ordinary printer's type. Damped paper is laid over the type when set, and beaten in with a brush. When dry, this paper mould is used for casting in stereo

metal. Another method employed for printing Moon's books is that which was originally introduced by the late Mr. H. Frere ; in printing his system, plates of tinned iron are used, which are washed over with a solution of chloride of zinc ; then letters formed out of copper wire are laid on, and the plate heated. This causes a partial melting of the surface, and, when the plate is cool, the letters are found to be firmly soldered to it. Nothing can well be imagined better than this method for producing plates to print on the systems of Frere or Moon. In Paris most of the printing is still done directly from movable type, but some books have been printed on one side from brass plates, on which the characters have been raised by placing them in a frame similar to the ordinary writing-frame, the letters being raised by a punch and hammer. The pits on the back of these plates are then filled in with solder, and by this means good and durable stereo-plates are obtained. One or two books have also been produced by a method similar to that used by the British and Foreign Blind Association. This Association printed their first books from brass plates prepared in the way already described, which was suggested by the experience of Paris ; but, to avoid trouble and expense of soldering, the pits were filled in with cement, and a sheet of paper was glued on to the back. These plates gave good printing, and have been found durable.

“The frame for producing stereo-plates is very similar to the ordinary interlined writing-frame, only stronger in all its parts. A sheet of brass folded upon itself is placed in the frame and embossed by means of a punch and hammer, in a similar way to that in which a style would be used in writing a single sheet of paper in an ordinary interlining frame. When the first side has been thus written, the double plate is reversed, being brought one line lower by a special arrangement of the clipped pins, and is embossed on the second side. The page number, in ordinary arabic figures, for the guidance of the binder, is now stamped upon the plate, and it is ready for the press without requiring any backing. These plates are prepared entirely by the blind. They are light, inexpensive, and durable, and this process is probably destined to supersede all others for the production of Braille books.

“INTERPOINT.—M. Ballu, one of the professors of the Paris

Institution, has suggested a plan of still further economising space. He embosses on both sides of the paper, but, instead of the lines on the second page occupying the intervals of those on the first, the points occupy partly the interval between the lines, partly the interval between the letters, and partly that between the component points of the letters. Theoretically, the saving is one of 100 per cent. over the non-interlined, and of 75 per cent. over the interlined Braille ; but practically it does not amount to this, as the intervals between the letters and those between their component points have to be increased in order to allow of the intercalation of the points of the second page. This increase of interval, however, makes the letters more distinct, and therefore allows of the employment of a smaller character. The idea is very ingenious, but the nicety of shift in the frame is so great as practically to offer serious obstacles to its general adoption.*

“LOUIS BRAILLE.—As the introduction of the Braille system was the greatest advance that has ever been made in the education of the blind, it may be interesting to give a short account of its author. Louis Braille was born on the 4th January, 1809, at Coupvray, in the Department Seine-et-Marne, about 23 miles from Paris. His father was a harness-maker, and both his parents were well advanced in years at the time of his birth ; hence the little boy, like Benjamin, became a great pet. One day, when about three years old, little Louis took it into his head to imitate his father, whom he saw at work, and, as generally happens with children, no sooner had this idea flashed upon his mind than it was put into execution. The work, however, did not progress as favourably as the little lad had expected ; the sharp instrument with which he was working slipped, and, flying up, put out one of his eyes. Sympathetic inflammation followed in the other, and soon both eyes were gone. In 1819 he was sent up to the School for the Blind in Paris. He here progressed well in all his studies—literary, musical, and mathematical. He learnt to read by the embossed roman letter, which was exclusively used at that time. Towards the end of his course as a pupil in

* Dr. Armitage's criticism has again been found unwarranted, as the Interpoint system is now very commonly used and much liked by the blind.

the institution he began to study the organ, and he soon became proficient enough to obtain the post of organist in more than one of the churches in Paris. His touch was decided, brilliant, and free, indicating faithfully the whole character of the man. In 1826 Braille was elected professor at the institution at which he had succeeded so well as a pupil. He began by teaching grammar, geography, and arithmetic; later on he taught history, geometry, and algebra, and not only was he an admirable teacher in these subjects, but also formed many excellent pianists. Every day he became more respected and beloved by those who were fortunate enough to be under his instruction. Braille did not confine himself to oral teaching, but also wrote several treatises, and proved himself to be no less able as an author than as a teacher. Among other works he composed an embossed treatise on arithmetic, which is a masterpiece of clearness and precision. "Our method of writing and printing," he said, "takes up so much space on paper that the fewest possible words must be used to express our thoughts.

"First as a pupil, then as professor in the institution, and even when at home during the vacations, he gave up all his spare time to the finding out of a system by which the blind could write in relief. For this purpose he studied various methods in which arbitrary characters were used. Of these, the one which seemed to lend itself best to relief-writing was one which had been introduced by M. Barbier.

"Ever since the age of 26 years Braille's strength was on the decline. His malady was pulmonary consumption, of which he died in 1852. He was much beloved; there never was a truer or a wiser friend. He was frequently consulted by pupils and teachers, and was always ready to give valuable advice.

"All that was mortal of Louis Braille has long since crumbled into dust, but the influence of his spirit is more widely felt now than at any former period. There is scarcely a school for the blind in the whole world in which his system does not form the basis of education. It is true that in many of the States of North America another point system is used. This, however, is derived from the Braille, and answers much the same objects."

AMERICAN (MODIFIED) BRAILLE

Modified Braille is the better name for this exceedingly clever and scientific arrangement of Braille's characters, which now numbers among its votaries nineteen of the best schools for the blind in the United States, including no less an institution than that at Boston, where it was *invented* by a blind teacher named J. W. Smith in 1878.

To write on a Braille tablet begin at the right; to read, reverse the sheet and begin at the left. In either case the six points  of which the characters are formed are numbered from the top, 1, 2, 3, for the first vertical row, and 4, 5, 6, for the second.

ALPHABET

a	b	c	d	e	f	g	h	i	j	k	l	m
•	••	•••	••••	•••••	••••••	•••••••	••••••••	•••••••••	••••••••••	•••••••••••	••••••••••••	•••••••••••••
n	o	p	q	r	s	t	u	v	w	x	y	z
••••••	•••••••	••••••••	•••••••••	••••••••••	•••••••••••	••••••••••••	•••••••••••••	••••••••••••••	•••••••••••••••	••••••••••••••••	•••••••••••••••••	••••••••••••••••••

To capitalise a letter prefix to it points 3 and 6 (••).

MARKS OF PUNCTUATION

,	;	:	.	?	!	—	(	)	'	-
••••••	•••••••	••••••••	•••••••••	••••••••••	•••••••••••	••••••••••••	•••••••••••••	••••••~••••••	•••••••••••••	••••••••••••••
“	”	‘	’							
••••••	••••••	••••••	••••••							

The apostrophe is point 4. The other marks, except the exclamation, are formed of points 2, 3, 5, and 6.

When two or more initial letters requiring the capital sign occur together, the space which separates words may be omitted; the period which follows the first letter then becomes also the prefix, or capital sign

for the next; thus,    F.R.S.

44 HISTORY OF THE EDUCATION OF THE BLIND

NUMERALS

When alone or in combination the following letters, if prefixed by the numeral sign (⠠), become numbers.

1	2	3	4	5	6	7	8	9	0
⠠	⠠	⠠	⠠	⠠	⠠	⠠	⠠	⠠	⠠
⠠	⠠	⠠	⠠	⠠	⠠	⠠	⠠	⠠	⠠

I 46 235

INITIAL LETTERS USED AS WORD SIGNS

but	could	down	from	great	have	just	know	like	my
⠠	⠠	⠠	⠠	⠠	⠠	⠠	⠠	⠠	⠠
⠠	⠠	⠠	⠠	⠠	⠠	⠠	⠠	⠠	⠠

not	quite	right	should	the	under	very	will	you
⠠	⠠	⠠	⠠	⠠	⠠	⠠	⠠	⠠
⠠	⠠	⠠	⠠	⠠	⠠	⠠	⠠	⠠

When the above words are parts of other words the initial letter must not be used as a representative ; *e.g.* ⠠ when standing alone represents "know," but "knowledge" should be written

⠠

OTHER CHARACTERS USED AS WORD AND PART-WORD SIGNS

an	and	ar	ch	ed	en	er	for	in	ing
⠠	⠠	⠠	⠠	⠠	⠠	⠠	⠠	⠠	⠠
⠠	⠠	⠠	⠠	⠠	⠠	⠠	⠠	⠠	⠠

is	of	on	or	ou	ow	st	th or that	tion	wh or which
⠠	⠠	⠠	⠠	⠠	⠠	⠠	⠠	⠠	⠠
⠠	⠠	⠠	⠠	⠠	⠠	⠠	⠠	⠠	⠠

The following characters, with one exception, are formed of points 2, 3, 5, and 6. When separated from words by the omission of a cell, they are word-signs, as follows :

had	their	to	was	with	would
⠠	⠠	⠠	⠠	⠠	⠠
⠠	⠠	⠠	⠠	⠠	⠠

It is a matter for great regret that, at the time when the revision of Braille in this country was in progress, advantage was not taken of the willingness of our American cousins to unite in a compromise, in order to establish a universal system of Braille, so that the books of the two continents might be interchangeable. It is not too much to hope, however, as the superiority of the modified Braille is slowly but surely making itself felt on the other side of the Atlantic, and that to such an extent that its universal adoption in America is only the matter of a few years, we may in this country, by and by, throw off our insular conservatism, and, in the interests of common sense and the general good of the reading blind, agree upon a system which shall be both scientific and dignified, and thus bring about in the world of Braille literature a condition of cosmos out of chaos and of "Peace with Honour."

MUSIC NOTATIONS

It was but natural that the first attempts to provide the blind with a musical notation should have been adaptations of the system—lines and spaces—of staff notation in use for the sighted, by means of printing in relief. It is absolutely essential, however, for rapid reading by the finger, that all the characters shall be in line, and shall be readily covered by the finger without the necessity of moving it up and down. If blind musicians, however, are to be competent to teach the seeing, they must have a sufficient knowledge of the staff notation to enable them to explain it to their pupils, and for this purpose specimens of this notation in relief are useful.

Nearly all those who have introduced special characters for ordinary reading by touch have also adapted their system to musical notation: Lucas, Frere, and Moon, for example; but none of these are of any practical value, having been entirely superseded by the Braille system.

BRAILLE MUSIC

Louis Braille worked out the system which bears his name. It was gradually adopted at the Paris Institution, where its introduction was greatly facilitated by the fact that most of the music professors there were blind, and were willing to test carefully a plan recommended by one of themselves. It is probable that much of the success of the pupils of that institution was due to the adoption of a system by which they were able to read and write music with rapidity and ease.

The basis* of the musical notation is the ordinary Braille alphabet, arranged in four rows containing ten letters each. The seven last letters in each row represent the seven musical notes—those of the first row being quavers; those of the second, minims; those of the third, crotchets; and those of the fourth, semibreves or semiquavers. The latter duplication of values leads to no complication, as any one acquainted with even the rudiments of music knows that a bar consisting of one semiquaver or sixteen semibreves is an impossibility. The notes take up twenty-eight signs, leaving thirty-three for other signs necessary, each sign occupying only the space of one letter.

As will be seen from the following pages, music in Braille does not occupy more space than the same music in ordinary print for the seeing; and it can be produced at a price not exceeding that charged for ordinary music to the profession—in fact much of it costs much less.

MUSIC

The piano and organ are the principal instruments by means of which a blind person may expect to earn a living.

Paris was the first institution to realise this, and it is before all else a school of music, training 60 per cent. of its pupils for this calling. Judged by after results, how-

* See p. 17, par. 2.

BRaille MUSICAL ALPHABET.

The notes on this line are semibreves or semiquavers. }  or 

C	D	E	F	G	A	B

The notes on this line are minims or demisemi-quavers. }  or 

C	D	E	F	G	A	B

The notes on this line are crotchets. } 

C	D	E	F	G	A	B

The notes on this line are quavers. } 

C	D	E	F	G	A	B

OCTAVE SIGNS (front dots).

1	2	3	4	5	6	7

FINGERING SIGNS (back dots).

+	2	3	4	5		In accord with

Rests and Accidentals.

Intervals.

2nd	3rd	4th	5th	6th	7th	8th

	Short Note.	Shake.	Repeat.	Staccato.	Dot.	Double Dot.

Double Bar.	Dotted Double Bar.		P.	F.

Cres.	Treble.	Bass.

EXAMPLE IN BRAILLE AND ORDINARY MUSIC.

SUN OF MY SOUL,

HORSLEY.

The image displays a musical score for the hymn "Sun of My Soul" by Horsley. It consists of four systems, each containing a Braille musical staff and an ordinary musical staff. The Braille notation uses standard musical symbols such as treble clefs, key signatures (one flat), and various note values. The ordinary notation is written on five-line staves with treble clefs and a key signature of one flat. The melody is primarily composed of eighth and sixteenth notes, with some rests and phrasing slurs. The score is presented in a clear, legible format, demonstrating the equivalence between the two musical notations.

ever, it is doubtful if the policy is a wise one, as probably not 20 per cent. *of these* are ever able to support themselves as respectable musicians.

The Royal Normal College at Upper Norwood has an excellent record with regard to the financial success of its late students. In 1884, twelve years after its foundation, it was able to boast that former pupils were earning in the aggregate well over £6,000 per annum.

The Royal Blind Asylum and School, West Craigmillar, also holds the proud position of having been able since 1890 to satisfactorily place every music student who completed his course, either as an organist or piano-tuner, and every one of them who is living is doing well and is entirely self-supporting, many having raised themselves to excellent positions, professionally and socially.

Several of the English institutions have excellent music-schools, for training organists and piano-tuners, notably Henshaw's Blind Asylum, Manchester, Birmingham, Nottingham, Sheffield, York, Leatherhead, Exeter, Swiss Cottage, and Liverpool.

To ensure a large measure of success among pupils after they leave a blind music-school the following considerations are necessary :

1. The aim must be to form musical artists who shall not be inferior to seeing artists trained at the best conservatoires.

2. The school must contain a large number of pupils, so that properly graded classes may be formed.

3. The school must have a very large income, in order to command the services of the best teachers, and to possess pianos and organs in sufficient numbers to give each pupil the opportunity of some hours' daily practice.

4. The kindergarten and literary work should also be thoroughly good.

5. Careful attention to personal appearance and the cultivation of good manners and a polite bearing are essentials to success, and this should be insisted on by the teachers.

PIANO-TUNING

Whilst it may with some justice be urged that piano-tuners are not musicians and should not be classed as belonging to the musical profession, still they appear to fall most naturally under that head ; and it is, to say the least of it, a wise measure for every young man in training as an organist or pianist to learn pianoforte-tuning also as a *stand-by*. There are many cases on record where the *stand-by* has proved the more lucrative of the two, for a young man so equipped. The first blind piano-tuner of whom any record remains was

CLAUDE MONTAL,

who, about the year 1830, along with a fellow pupil at the Paris School, attempted to tune a piano on which they practised. It, as well as the other pianos in the institution, was kept in very indifferent tune by a seeing tuner. This man complained to the director, who administered a sharp reprimand to the two blind pupils, forbidding them ever again to interfere with the "action" of the piano.

Nothing daunted, however, the two friends procured an old piano for themselves, and obtained permission to keep it in the institution. Again and again they dissected and rebuilt the instrument, until they thoroughly understood the relations of all the component parts. They then proceeded to repair what was broken and to supply what was missing, nor were they content till they had put the instrument in perfect working order, and brought it into good tune.

As the director had daily observed the lads at their work, he knew it was by their own unaided efforts such a remarkable result had been achieved. Struck with their talent, he entrusted to them some considerable repairs in the chapel organ. The experiment proved perfectly successful, it being acknowledged that no professional organ-builder could have done his work in a more masterly manner.

By degrees they obtained permission to keep all the pianos of the house in tune, and to make whatever little repairs were necessary. The next step was to begin regular instruction in tuning, and thus commenced the tuning classes which made the Paris School famous all over the world. Montal soon left the institution, and endeavoured to obtain a private tuning connection. He was met, however, by the unreasoning popular prejudice against blind tuners which still exists to-day. A mere accident—as it appeared—brought him into prominence and established his success. One of the professors of the Conservatoire of Music had two pianos of totally different construction which he required to be in exact tune, the one with the other. All the seeing tuners he tried absolutely failed in this, and so he sent for Montal, who, after a careful examination of the differences in their construction, tuned the instruments in exact accord, to the great delight of the professor. Other professors now employed him, and, at the great Exhibition in 1834, most of the makers had their pianos tuned by him.

In our own country one of the most remarkable cases of success achieved by a blind pianoforte-tuner is that of Captain Gosley.

Whilst a young officer on board a merchant ship, Captain Gosley (for he held his master's certificate, though acting as mate) lost his sight. He was rejected as an impossible case by a prominent music-school in England, and turned, almost in despair, to West Craigmillar, where, after only a few months' training, he boldly went out into the world to seek his fortune as a tuner. He met with immediate success. He worked early and late, and in a few years obtained all the pianos in the Edinburgh board schools to tune by contract, and established an excellent family connection, travelling alone, as far into the country as Berwick-on-Tweed. He is popular wherever he goes, and probably, so far as financial success is concerned, stands at the very top of blind piano-tuners.

MASSAGE

For many years the blind of Japan held a monopoly of this employment in that country. Only in comparatively recent years has it been introduced into this country as a means of livelihood for the blind.

It has been extensively taught at Henshaw's Blind Asylum, Manchester, and the young women trained there have been very successful, both as private practitioners and as masseuses in hydropathics, baths, etc.

An Institute for Massage by the Blind has been formed in London for training the blind of both sexes in this branch of work, under the care of Mrs. MacNicol, 71, Bolsover Street, London, W. The training is superintended by Dr. Fletcher Little. For young blind persons of good physique and intelligence, and with a sufficient amount of tact, patience, and, above all, a polite, genial manner, there is no better or more lucrative form of employment. Great care should be taken, however, that a certificate of efficiency in this art is never granted without a most searching examination as to qualifications and character.

TEACHING

There is little doubt that for the teaching of those subjects which require the use of special apparatus, such as reading, writing, and arithmetic, the well-trained blind teacher is the equal or superior of his seeing colleague.* And many experts are agreed that the authorities or committees of schools and institutions for the blind who decline the services of blind teachers are literally and theoretically standing in their own light. One blind teacher to two seeing, is a most desirable combination.

HANDICRAFTS

After the first attempts at literary education of the blind by Valentin Haüy and others, the attention of those

* See Paris paper, p. 157.

in charge of institutions for those deprived of sight appears to have been mainly concentrated on instruction in handicrafts or trades which might provide a means of livelihood to those with sufficient ability and perseverance to learn them.

Some of the earliest occupations adopted for this purpose were spinning, weaving, list-rug-making, and shoe-making. Then followed basket-making, mat- and matting-making, and, later still, pianoforte-tuning. The manufacture of bedding also appears to have been early in the field, especially in Edinburgh and Glasgow, where it still flourishes as the best and most lucrative form of blind industry.

Speaking at a conference held in York in 1883, Mr. William Martin, for over thirty years manager of the Edinburgh Blind Asylum, said, "Speaking generally, and having in view the greatest possible good to the largest number, it is safe to place the manufacture of bedding decidedly to the front as one of the most suitable handicrafts for the blind—easy of acquirement, in constant demand, returning fair remuneration to the workers, yielding a good profit to the institution, and affording work for both males and females."

So great has been the progress in this branch of work in the Glasgow Asylum, that at the present time over thirty women are kept constantly at work, at sewing-machines driven by electricity, making tickings for beds, pillows, etc.

Brush-making is much taught and followed as a trade, both in English, Scotch, and Irish institutions and workshops. In some, as at Birmingham, Cornwallis Street, Liverpool, and Belfast Workshops, for instance, it is looked upon as the best employment from a financial point of view, both in regard to employer and employed; but in the majority of cases it is adopted as an occupation only.

Basket-making, again, is the staple employment in many blind workshops, as for instance Manchester, Leicester, Nottingham, Leeds, and Bradford; whilst mat- and matting-making follow as a good second—in fact, at the Cornwallis

Street workshops in Liverpool this industry is considered one of the best, as at Henshaw's Blind Asylum, Manchester. The fancy mat- and rug-making of the School for the Indigent Blind, Leatherhead, are a marvel of achievement in this connection.

Chair-seating in cane and rush, along with hand knitting, sewing, and brush-making were, until comparatively recent times, almost the only employments open to blind women, apart from the manufacture of bedding; but now the sewing and knitting-machines, copying of Braille books, typewriting, massage, Swedish weaving, and light basket-making occupy many.

Weaving and shoe-making, whilst being, as already stated, and as a reference to Dr. Guillé's books written in 1819 sufficiently testifies, very old occupations for the blind, are generally looked upon nowadays as quite a modern idea for blind employment. It seems strange that such excellent and useful handicrafts should have been given up so soon, especially when, as it would appear, the inmates of the Edinburgh Institution were able, in the closing years of the eighteenth century, to make all the towelling and much of the bed-linen and clothing materials used in the establishment.

The following is a list of employments in which the blind of Great Britain and Ireland are engaged:

MEN

Basket-making.	Mat-making.
Bedding-making.	Matting-making.
Braille-printing.	Rug-making.
Braille-writing.	Sack-making.
Brush-making.	Ship-fender-making.
Cabinet-making.	Shoe-making and repairing.
Chair-seating.	Tea-hawking.
Firelighter-making.	Typewriting.
Firewood-chopping.	Upholstery.

Higher Branches

Holy Orders.	Music.
Law.	Piano-tuning.
Massage.	Teaching.

WOMEN

Basket-making (light).	Netting.
Bedding-making.	Rug-work.
Braille-writing.	Straw-plaiting.
Brush-making.	Straw-bag-making.
Chair-seating.	String-bag-making.
Crochet.	Swedish weaving.
Knitting (hand and machine).	Typewriting.
Macramé lace-making.	Upholstery.

Higher Branches

Massage.	Music.	Teaching.
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REVISION OF BRAILLE

No event in the history of the education of the blind should be of more real interest to teachers than the revisal of the Braille system, which was completed by the British Braille Committee early in 1905, and authorised by the Edinburgh Conference of that year as orthodox Braille for educational and other purposes in Grades I. and II., and referred to the British and Foreign Blind Association for publication.

This revision constitutes such an epoch in the history of the education of the blind that a *résumé* of the chain of circumstances which led up to it is essential.

In January, 1893, there emanated from the Braille publishing office of the Royal Blind Asylum and School, West Craigmillar, Edinburgh, the first number of the now well-known monthly magazine *Hora Jucunda*, designed, as it then was, on the lines of *Tit Bits* (the popular weekly for

the sighted). It was the first *blind* periodical of such a nature, and its correspondence column was eagerly taken advantage of by subscribers.

As might have been expected, the incongruities of written and printed Braille soon became the chief topic of discussion, and, as the letters and editorials on this subject really formed the embryo from which the British Braille Committee developed, we copy them—at any rate in their early stages.*

OUR ENGLISH BRAILLE

LETTER TO THE EDITOR, *March*, 1893

“DEAR SIR,—May I be allowed to say a word on the above subject? The thanks of the blind are due to the British and Foreign Blind Association for introducing the Braille type into this country; but in the matter of contractions that body has not always acted with that clearness and precision which one could have wished. The arbitrary rules which they drew up have been often violated by them in the printing of their books. Now this leads to confusion. It is worthy of note that you will hardly get two people to write contracted Braille in the same way, and the editors of *Santa Lucia* have by no means simplified the matter. I would be glad to interchange opinions with your subscribers on the subject.

“Yours, etc., A. C.”

EDITORIAL, *April*, 1893

“It seems to us that the subject of contractions, now being discussed, is one which deserves the attention of every thinking blind person. It is time the question was settled, and, as *Hora Jucunda* finds its way into almost every school for the blind in the kingdom, we think our pages a very fitting place for the controversy to be thrashed out, a unanimous conclusion arrived at, and a universal system adopted.

“Will all our readers therefore take up the matter with

* We have only space here for a small portion of the correspondence which appeared at the time; but we give sufficient for our purpose.

heart and soul, and send us their opinions. The B.F.B.A. is no longer the only *Braille fountain*, and, as experience teaches wisdom, so we cannot, for all time, adopt an arbitrary system of contractions which these would-be autocrats have chosen to lay down, but which they, in their publications, honour almost as much in the breach as in the observance."

LETTERS TO THE EDITOR, *April*, 1893

"DEAR SIR,—The subject to which 'A.C.' invited the attention of your readers is one, I think, which deserves their careful consideration. The present is perhaps a good time for re-opening the question, as the B.F.B.A. does not now hold the field unchallenged, other printing-presses having been introduced—silent witnesses that the principle of decentralisation is a dominant factor in the life of to-day. The subject can well bear discussion, and your columns furnish the best means for carrying it on. Well, sir, how shall we best approach the subject? May I offer a few suggestions which may serve as a nucleus from which a healthy discussion may grow. 1. Contractions written in the lower cells should not be followed by punctuations. 2. The omission of vowels should be deprecated, at any rate where there is risk of ambiguity. 3. Contractions which would interfere with the proper syllabising of words should not be used. I trust these suggestions will serve the purpose intended.

"Yours, etc., G. D."

"DEAR MR. EDITOR,—In your issue for March I observe a letter signed 'A.C.' on the above subject. I feel sure you will recognise its importance, and I know of no better place for its discussion than the pages of *H.J.* 'A.C.' is right in saying that 'you will hardly get two people to write contracted Braille alike,' but it cannot be otherwise as the matter now stands.

"The rules are multitudinous and confusing, and are the main cause of the inconsistencies referred to. A single instance will suffice for the present. The rule with regard to lower-letter contractions is that two shall not follow each other in succession. How is it possible to adhere to that rule and always write the same word in the same way?

Progress, the organ of the B.F.B.A., in its March issue, criticises *H.J.*, favourably on the whole, but takes exceptions to the contractions used. 'People who live in glass houses should not throw stones.' I venture to think that *H.J.* is the more correctly printed of the two magazines. The Association violates its own rules in every page of its publications. In this very number of *Progress* I see proper names contracted as often as not, and the terminal contractions are *not* confined to the end of words, as, for example, page 23, line 16, 't:ngue,' and page 36, line 6, 'occa:al,' etc. 'St' and 'ch' are contracted before and after 'a,' and also before the comma. The spacing is irregular, as many as three spaces being left blank here and there between words in the middle of sentences. One point in the review is particularly noticeable: 'Some contractions,' it says, 'are used which were adopted by the Association, but were afterwards discarded by us.' Query: what are they, and when, or by whom was the Association invested with authority to introduce or discard contractions at will? Apologising for taking up so much of your valuable space,

"I am, yours, etc., J. B."

LETTER TO THE EDITOR, *May*, 1893

"DEAR SIR,—I rejoice to read the vigorous protest which is at last being made in the pages of *H.J.* against the unwarrantable assumption of infallibility by the B.F.B.A., and I hope that now the blind have found a competent leader, the genius and common sense of the many will triumph over the caprice of the few. I should like to add two suggestions to those of 'G.D.' 1. Punctuation marks should be allowed to follow numbers, in the interest of correct representation of ordinary print. 2. There is still room for new contractions, and it would be well to consider those adopted by the editors of *Santa Lucia*. The rule of the B.F.B.A. emended to my first suggestion prevented me for a long while from knowing that I ought to write my address with a comma after the number of the house. With regard to my second suggestion, if we write 'rev' for 'receive,' why not 'dev' for 'deceive,' and so forth? I would also propose a modification of 'G.D.'s' first suggestion: namely, 'Contractions written in the lower cells should not

be followed by punctuation marks which involve a bottom dot.' I see no objection to writing 'oft *en*,' 'often,' though 't *en*.' is objectionable. Vowels should be missed with discretion. I should like to use the letter 'r' for 're' at the beginning of a word: *e.g.* 'rpeat' for 'repeat.' I should like to point out that the B.F.B.A. has gone so far as to print books already stereotyped in Braille. Many years ago the Greek Gospels were printed at Worcester, well enough to supply the requirements of any student, except in the matter of accents: in spite of this the B.F.B.A. is printing them afresh, from pure love of autocracy. The same remark applies to 'Cæsar's Gallic War,' books I. and II.

"Yours truly, T. B."

LETTER TO THE EDITOR, *June*, 1893

"DEAR SIR,—The first suggestion given us by 'G.D.' is simply a repetition of one of the rules laid down by the B.F.B.A.: 'Punctuation marks should not precede or follow signs of line 5.' (See table of contractions.) But my contention in this connection lies here, that on the very page where the law is so clearly stated we find it also violated. Respecting the omission of vowels, it is very easy to see how you may lead to ambiguity there. There are nineteen words (and their compounds) in which the letters 'ea' are omitted. Few have been able to see, however, why these particular words have been selected to the exclusion of others similarly spelt. It has therefore become customary to omit 'ea' in quite a number of words. I distinctly remember reading in the Bible about the man that 'fred' the Lord. Certainly this looks very much like 'Frederick' shortened. 'Hd' stands for 'head' and 'gd' for 'good'; the only point of similarity between these two words is the fact they both contain four letters, and it seems strange to me that they should have been made to look so like each other in Braille. To attempt to remodel our system, however, at this time of day, would be a very serious matter indeed, and certainly this was not my idea when I started this discussion. Though the B.F.B.A. is not the only Braille fountain, still it was the first, and all other Presses have gone upon their lines, more or less. What we want is uniformity in printing; if we could get the London people to adhere to their own rules, and co-operate with us in

working out some minor improvements, we will have gained a great deal.

“I am, yours, A. C.”

EDITORIAL, *September*, 1893

[In reply—in part—to a letter which appeared in the *Leeds Mercury*.]

“Scarcely has our good barque *H.J.* been launched on the billowy sea of literature, than it is assailed by a storm of criticism no less unreasonable than it is unjust. Were it not that our timbers are bound and welded together by the kindly support and encouraging words of the majority of our readers, and the motive power supplied by an ardent desire to serve our fellow men in our day and generation, we might have gone down before the mighty blast. We have ventured to strike out a new and original line—as far as this country is concerned at least—in the history of Braille literature, by providing a magazine at a cheap rate which will make a blind man laugh like an ordinary mortal, which will enable him to procure intellectual food of a light and pleasant kind, and this without driving him to the necessity of procuring a reader. Worst sin of all: we have opened a correspondence column wherein the Valentin Haüys, Brailles, Alstons, and Moons of the present generation may ventilate their ideas for the benefit of their fellows. During the past few months a number of letters have appeared on the all-important, and what should be to the intelligent blind person, all-engrossing subject, ‘Our English Braille.’ We will not attempt to descant upon the various merits and demerits of the said letters. But we would note in passing that it has been a matter of great surprise and some regret that more of the educated blind in Great Britain and Ireland have not taken up the cause with zeal and enthusiasm. . . . We now lay the ‘rules of the B.F.B.A. on contracted Braille’ before our readers, beginning with the October issue, and in the meantime we shall take measures for ensuring the consideration of these rules, with a view to confirmation or alteration by the Braille-reading blind of the three kingdoms: and, as our only and inspiring motive is to procure ‘the greatest possible good for the greatest number,’ we sincerely trust that we shall

have the hearty co-operation of all interested in the welfare, and more especially in the higher education of the blind. And this is our plan :

“ 1. A Union is to be formed in connection with *Hora Jucunda*, which will be termed ‘ Our English Braille Union.’ The only condition of membership of this Union will be ‘ a tolerable knowledge of Braille writing.’ We shall judge as to competence in individual cases, and our local secretaries where branch clubs are established.

“ 2. This will be wherever circumstances enable a number of our readers to confer together, as in institutions, workshops, and outdoor societies.

“ 3. As the various rules are printed in *H.J.*, they will be considered and thoroughly discussed by the various members of the Union, and the decisions for and against, and any suggestions relating thereto, will be transmitted to us by the local secretaries, or, in individual cases, by the subscribers themselves.

“ 4. These ‘ ayes ’ and ‘ noes ’ will be published the following month, along with any new idea, which will come in for its share of scrutiny at the same time as the second batch of rules ; and so forth.

“ 5. We shall send a printed copy of this editorial to all the masters and managers of institutions as well as to all missionaries to the outdoor blind, so far as we can, earnestly imploring their interest and co-operation. We do most heartily beg of our readers not to go away with the idea that we are propagating a scheme which will render the perusal of present Braille literature impossible to the rising generation, but one which will give to our English Braille a foundation, a uniformity, a symmetrical grandeur worthy of itself and of the Paris genius who left us a legacy of more value far than ‘ the wealth of all the Indies.’

“ We do also implore you to come to the consideration of this vital question with a pure heart, with a mind unsullied by bias or prejudice. It is not a party question, for *this* Association or *that*—it is cosmopolitan in the purest sense of the word ; and, in seeking to extend the franchise thereon we are doing our very best to perpetuate and carry forward to a greater perfection the noble work so ably begun by the late Dr. Armitage and his indefatigable colleagues, and to follow the example of one of the noblest of England’s

sons and one of the greatest benefactors of the blind the world has ever seen.”

LETTER TO THE EDITOR, *October, 1893*

“DEAR SIR,—It was with no small degree of interest that I perused the able editorial in *H.J.*, September. It seems to me a pity that this organisation should be termed ‘Our English Braille’ Union. Why not substitute the word ‘British’? Then, with regard to the discussion of the rules, would it not be better that the said rules should be disposed of by a representative council composed of delegates elected by the various clubs, and from the B.F.B.A., should they see their way clear to co-operate with us? Of course the rules might be discussed in private as well. The Union will, I am sure, do much good.

“W. Y.”

LETTER TO THE B.F.B.A., *January, 1894*

“MADAM,—As Editor of the new popular magazine for the blind, *Hora Jucunda*, and as Headmaster of one of the first institutions for the blind in the kingdom, I have the honour to address to you the following lines, with the request that you will kindly lay them before the Executive Council of the B.F.B.A., and convey to me their reply thereto at your convenience. In connection with the above-named magazine it has been deemed advisable to inaugurate a Union which is to be entitled ‘*Hora Jucunda Union*,’ and which shall have for its primary objects: ‘(a) The discussion and settlement of all matters of common interest and difficulty to the blind; (b) the propagation of new ideas for general improvement; (c) the circulation of information upon matters of common interest.

“The proposed Union is the outcome of a large number of letters I have received from well-educated blind people in all parts of Great Britain and Ireland, regarding matters of interest to the blind, which it is impossible for one, two, or a dozen people, however well-intentioned, satisfactorily to dispose of. While acknowledging with profound gratitude the enormous blessings conferred on the blind people of the world by the late Dr. Armitage, and the Association, my correspondents and myself are agreed that the time

has now come for that work being enlarged and extended, so that the opinion of all the educated blind may be considered, regarding matters of common interest. To all who, like the B.F.B.A., the editors of *Santa Lucia*, myself, and others, are engaged in producing Braille printed literature, it can but be a subject of deep concern and regret that so many different methods are in vogue for representing the same word in Braille type. This fault is chiefly noticeable in the use, or abuse, of contractions and combinations. There is no doubt that it will be extremely difficult if not impossible to cause all writers of Braille to adopt the same form—and when writing for themselves such a stricture is unnecessary—but it is, I venture to say, essential that those who are responsible for the printed literature should at any rate adopt an absolutely uniform system, and this system should be one which commends itself to the many educated blind of the country, and not to the few. One of the aims of the proposed Union is to bring about this desirable end. In the name of the *H.J.* Union, therefore, which is shortly to come into life, I beg most respectfully to solicit the hearty co-operation of the B.F.B.A.

“Yours obediently, W. H. ILLINGWORTH.

“Mrs. T. R. Armitage.”

REPLY FROM THE B.F.B.A.

“SIR,—Your letter has been laid before the Council, and I am instructed to inform you that the following resolution was agreed to: ‘While ready, as they have always been, to receive suggestions from any quarter, the Council reserve to themselves the right to decide what alterations, if any, they should recommend to the public, in the rules hitherto followed in regard to Braille contractions.’

“Yours truly, G. R. BOYLE.”

EDITORIAL, *April*, 1894

“We do little else this month than lay before our readers a copy of the minutes of the first meeting of the Edinburgh section, which took place on 14th March. A branch Union is in course of formation at Bath, under Mr. T. Barnard; another at Dundee, under Miss Dawson; at Cambridge,

under Mr. A. Bull ; at Deal, under Mr. Bishop ; at Huddersfield, under Mr. Beech. All intending members in these districts kindly at once communicate with the respective local secretaries. We have written to the Postmaster-General for information as to the mode of procedure to be adopted in carrying into effect the motion of which Mr. Prendergast gave notice at the meeting of our section of the Union. We shall be glad of the opinion of our readers on this important motion."

"HORA JUCUNDA" UNION

"MINUTES OF THE MEETING, *Edinburgh, March 14th, 1894*

"*Business.*—1. Rules for guidance of Edinburgh section of the Union. (a) Meetings to be held once a month, on the Wednesday falling on, or first after the 15th. (b) Mode of procedure ; notice of motion to be made at next meeting to be given in all cases involving a difference of opinion.

"2. *Braille Contractions.*—Mr. Calley moved and Mr. Lees seconded : 'That the rules of contracted Braille, published by the B.F.B.A., be published in *H.J.*'

"3. *Notice of motion.*—Mr. Prendergast first gave notice of motion : 'That the powers that be shall be approached with a view to obtaining a substantial reduction on the amount of postage and railway carriage now paid on embossed literature.' *

"4. *Hora Jucunda.*—'That the minutes of this meeting be published in the April issue for the guidance of branch societies.' "

EDITORIAL, *May, 1894*

"A few of our readers seem to be under the impression that the chief object of the *H.J.* Union is to equip a crusade against the B.F.B.A., and to introduce such drastic changes in the Braille system of contractions as to render all existing books useless. Nothing could be further wrong. It has been our wish from the first to work harmoniously with the Association, and, if we have failed, the fault is not ours. When 'Braille, as presently written,' comes to be discussed

* This is worthy of note as showing where the first practical movement in connection with cheaper postage originated. See also "The Blind" under date October 20, 1906, and April 20, 1907, and the green pamphlet, p. 63.

by the Union, it is our intention to submit any proposed change to the B.F.B.A. before adopting it in the books we issue, or recommending it to our members. We are constrained to this course, first, because we wish complete uniformity if we can get it, and second, out of respect to the late pioneer of Braille in this country, who in his lifetime always treated us with the kindest courtesy."

EDITORIAL, *June*, 1894

"It would be very ungracious on our part if we did not in this number take some notice of the very kind and hearty way in which the editors of *Santa Lucia* have come forward, not only to co-operate with us in the work of the *Hora Jucunda* Union, but by kindly printing the matter in connection therewith every month, enabling readers of that excellent magazine to become members on condition that they possess the necessary Braille qualifications. This will greatly augment our forces, and enable us to get a much greater number of opinions on the great subject before us, than would have been the case had we confined ourselves to readers of *H.J.* In addition to this, we shall have the benefit of suggestions from a really good source, situated at Richmond-on-Thames."

"HORA JUCUNDA" UNION

"The second meeting of the Edinburgh section of *H.J.U.* was held on Wednesday, 16th ult. The first ten characters of the Braille alphabet were carefully considered, and the following resolutions unanimously adopted: B to be used for 'but' as a complete word only. C not to be used for 'Christ,' but suggest that it be used for the word 'can,' wherever it is a separate word only. D to be used for the word 'did.' E F H I to stand as at present used. G not to be used for 'God,' but for the complete word 'give.' J for the complete word 'just.'"

July, 1894

"Of those who voted on the first line of contractions, 28 are agreed as to A B D E F H, 24 as to the suggested change of C G J, and 4 against such a change. One member

suggests that all letter-words should be used also as compounds by the aid of the front middle dot: as (.c.n) for 'cannot.'

"The suggestions of the Edinburgh section of the Union on the second line of contractions are as follows: to stand as complete words only, K for 'knew,' L for 'like,' M for 'may,' N for 'not,' P 'people,' Q 'quite' (always to signify 'qu'), R 'right,' S 'some,' T 'that.'"

October, 1894

"A meeting of the Edinburgh section was held on Wednesday, 19th September, when the President read his monthly report. 24 vote that K stand for 'knew,' 1 votes that it stand for 'know,' 3 for 'kind'; 23 that L stand for 'like,' 3 against; 26 that M stand for 'might,' 1 against; 24 that Q represent 'qu,' 3 against; 2 members wish P to stand for 'put.'

"The third line of the alphabet was considered, and it was unanimously suggested that X stand for 'except' or 'were,' the Union to decide which."

Shortly after this, for reasons fully set forth in the paper on "Uniform Braille," page 82, par 6, the *Hora Jucunda* Union ceased to discuss the subject.

As will already have been noted, however, by an observant reader, several alterations on the old Braille system agreed upon by the *H.J.* Union are to be found in the revised Braille system now in use. And, further, that one of the correspondents suggested that the *H.J.* Union, should take the very title which was ten years afterwards assumed by the revising body.

The climax which brought about the revision of Braille was reached at the London Conference of 1902, by the reading of the paper on "Uniform Braille." At that conference, on the recommendation of the Gardner Trust, a committee was appointed for this express purpose. After a few meetings this Committee was joined by an equal number of representatives from the British and Foreign Blind Association, and the joint committee became one

under the title of the British Braille Committee—almost ten years to a day from the date when the Association was asked to join the *Hora Jucunda* Union.

UNIFORM BRAILLE SYSTEM *

“When the Secretary of the Gardner’s Trust invited me to contribute a paper on the above subject for this Conference, I confess to a feeling of gratification, although I was aware of the difficulty and magnitude of such a task ; seeing it is a subject which has engrossed my attention for the past ten years, and upon which I have written much and received a considerable amount of correspondence owing to my official connection with *Hora Jucunda*. I therefore beg to thank the Committee for the honour they have thus conferred upon me.

“And here may I be allowed to tender my best thanks to the many kind friends who have supplied me gratuitously with an immense amount of literature bearing on the subject of embossed types, etc., which has been of great service to me in the preparation of this paper ; also to those ladies and gentlemen who have given me the benefit of their advice freely and directly through my circular letter and otherwise.

“I sincerely hope that none of the members of this Conference anticipate that in my paper to-day it is my intention to submit for their consideration any scheme of ‘Uniform Braille System,’ cut and dry and ready for immediate application if approved. Out of a chaos, born of conflicting opinions and petty jealousies, combined with an almost incredible amount of apathy, indifference, and indecision such as exists in the meantime in the Braille world, it would be impossible by any means short of a miracle to create or formulate such a scheme. I beg to submit that, though the time may be quite ripe for a serious attempt being made to improve the existing state of matters, it will require years of patient thought and interchange of opinion before a perfectly uniform and practical system can be evolved or devised. We have the men and women and we have the brains essential for such an undertaking, but what we lack,

* By William Henry Illingworth, Esq., then Headmaster of the Royal Blind Asylum and School, West Craigmillar, Edinburgh.

or at any rate have lacked in the past, is the power, or the will, or both, to focus and concentrate our united experience and skill, with absolute singleness of purpose, and charitable, sympathetic self-abnegation, on a determined effort to make the Braille system—if that system be the very best system—as perfect and simple as possible, and worthy to be the tangible exponent of the most powerful and universally spoken language of modern times.

“We hear often, and are treated to examples of, ‘English as she is spoke,’ but I venture to think that, for variety and specimens of the grotesque, this pales into insignificance before ‘Braille as she is wrote.’

“Since I suppose I may take it for granted that most of the members of this Conference are to a greater or less extent Braille scholars, I may be pardoned for entering pretty fully into technical details where occasion demands.

“At the outset I think it desirable to give a brief history of Braille, English and American, with a few words on the New York Point, so that, as I proceed, references to any or all of these may be the better understood.

“Louis Braille was born on 4th January, 1809, at Coupvray, near Paris. At three years of age an accident deprived him of his sight, and in 1819 he was sent to the Paris Blind School—which, you will remember, was originated by Valentin Haüy. Here he made rapid progress in all his studies. He learned to read by the embossed roman letter, which was exclusively used at the time and which continued popular for fifty years in that country and our own, and is even still used in many schools in America.

“In 1826, now a promising organist in a Paris church, Braille was elected Professor at the Institution. Among other works he wrote an embossed treatise on arithmetic. Both as pupil and teacher he spent most of his leisure in trying to find out a system by which the blind could write in relief, and, to this end, studied various methods in which arbitrary characters were used.

“One which had been invented by M. Barbier appeared the most promising. M. Charles Barbier was an officer of Artillery, who, being rich and philanthropic, was interested in the blind, and did what he could to promote their education. In 1825 he suggested embossing by means of a point method, the character containing 12 dots, 6 high and 2

wide, arranged in a rectangle. The character thus obtained was large and unwieldy, though capable of an almost unlimited number of combinations.

“Louis Braille cut Barbier’s character in two, and thus produced his well-known 3×2 . On this basis Braille was the first who devised a practical scheme for printing and writing in tangible form, suitable to the tactile capacity of all. This was in 1829. After some slight modification it reached its present form in 1834, and is the system which has since borne his name.

“We do not find, however, nor does it appear, that Louis Braille, in arranging his system, paid attention to any other considerations than one, namely, a methodical arrangement of the letters of the alphabet*—the second ten letters being formed from the first ten, and so forth. Now, whilst this may be some slight aid to pupils learning the alphabet, it is unscientific and clumsy when applied to literature in general; and in these days, when reading is taught to a great extent without children learning the alphabet as such at all, that small advantage vanishes into thin air.

“It appears strange on the face of it, that we, at the beginning of the twentieth century, should be willing to accept, as the best possible exponent of literature for the blind, an arbitrary arrangement of arbitrary signs given to the world seventy years ago, without first having satisfied ourselves that this system and these arbitrary signs are the best that the science and art of our time can supply.

“I ask you, my friends, in common fairness, whether it would not have been wiser to have had this primary question of the alphabet, or I should prefer to call it ‘Root Braille,’ settled by popular vote or plebiscite before proceeding to elaborate such an extensive superstructure as has been compiled at an immense expenditure of time and labour by the sub-committee of the British and Foreign Blind Association?

“For my own part, I must candidly confess I have a strong leaning to the ‘American Braille’ arrangement, root and branch—the contractions, like the letters, being carefully and scientifically planned; and, as you will see by referring to the leaflets that I have placed in your hands, nearly one half of the letters of that alphabet are the same

* Later research suggests a somewhat different view. See p. 17, par 2.

as our own, so that the labour of learning it by those conversant with English Braille would be very small.

“I would strongly urge that a copy of the ‘American Braille System,’ accompanied by a note prepared by an able exponent of that type, should be sent to all those who have been favoured with a copy of the ‘Recommendations’ of the Contractions Committee, so that they may study the two together and vote accordingly. If that committee will kindly supply me with the necessary names and addresses, I will undertake to carry out this project.

“If we are to have a ‘Uniform Braille System,’ let us have the best in the world.

“But to return. The period above mentioned, 1825 to 1835, appears to have been a period of universal activity in matters relating to embossed literature and printing. In Britain we had Gall (of Edinburgh), Alston, Moon, Fry, Frere, and Lucas, all bringing out their own peculiar types, and each having his own partisans. In America there were Mr. Friedlander, Dr. Howe, of Laura Bridgman fame, and others.

“Although, as I have said, Braille perfected his system both for ordinary reading and writing, and for musical notation in 1834, it was not until twenty years later that it was officially adopted at the Paris School, and that was when Louis Braille had been dead two years. Thus, like many another reformer, he did not live to see the triumph of his labours.

“About 1859 or 1860 the Braille system was introduced into America, and was taught with some success at St. Louis. In the year 1868 the British and Foreign Blind Association came into existence, and, having brought Braille into this country, gave to it a powerful impetus by printing and disseminating books in that type. Old prejudices died hard, however, not only in this country, but also in France and America. Even in 1878 there was no uniform system of embossed literature in France; for, in the ‘Report on Articles Exhibited by various European Blind Institutions at the International Exhibition at Paris in 1878,’ I find this paragraph: ‘Although the Braille type is a French invention, it seems a mistake to make use of no other system of reading and writing. Valuable as it is, there are advantages connected with other systems

which ought not to be overlooked in a national institution like the Paris School.'

"In the same year the late Edmund C. Johnson, Esq., for so long a director and patron of the Southwark School, and also a member of the Royal Commission on the Deaf and Dumb and Blind at a much later date, along with the Chaplain, Rev. B. G. Johns, reported on the Paris Congress to his Committee, and on page five of that report I find: 'After much discussion, in which Mr. Johnson frequently took part, the Congress dealt with the question of "Unification of the Systems of Reading" as the special aim of their labours, which they hope to reach by a universal adoption of Braille's system as used in France, applied to all processes of reading, writing, and music, as well as to more advanced studies in language and science.

" "We, however, are of opinion that the entire adoption of any arbitrary system, such as Braille's, would tend to increase that very isolation of the blind which it is thought to lessen, and to cut them off more and more from the rest of the world. We are convinced that they should, as far as possible, read and write, and gather information in the same characters as those used by the sighted. If all men were blind, nothing could be better than Braille; but as, happily, the blind constitute only a small minority, they must be bound fast to the majority by the adoption of that character of letter known to the civilised world. The Braille system is a mystery to all but the initiated; the roman letter is known wherever English, French, and German are known—in a word, everywhere. We hold, therefore, to the roman letter as the primary foundation of the work in general, reserving for Braille its own special department: for the notation of music, which only a small portion of the blind can hope to pursue except as an amusement, and for mathematics, composition, and such higher studies as the few richer, and more intellectual can cultivate.'

"At the same Conference the late Dr Armitage read a paper on the 'Education of the Blind in Ordinary Schools in England,' in which he states that the London School Board, having called a conference of all their blind teachers and others for the purpose of considering what was the most suitable type for educational purposes, and all the blind, with two exceptions (Dr. Moon who voted for his

own, and another who voted for roman), having given their verdict in favour of Braille, the School Board deliberately determined upon continuing to use Moon's system until school-books in roman type should be printed. Dr. Armitage goes on to say: 'This extraordinary decision can only be accounted for by the difficulty that the seeing have in understanding the educational wants of the blind, and their consequent tendency to retain those methods of education which they can understand, and reject those which do not at once recommend themselves to the sense of sight.'

"Thus it will be seen that both in England and France there was, even at so late a date as 1878, considerable diversity of opinion as to the claims of Braille as the best method of reading and writing for the blind.

"In America the same thing occurred. Mr. Waite, of New York, inventor, or perhaps the perfecter, of New York Point type, tells us in his 'Review of the Origin and Development of Embossed Literature,' page 10, that 'the merits of the Braille system were recognised chiefly by a few blind persons who were engaged in teaching. It was proscribed as being arbitrary on the ground that it was unlike the ordinary forms of letters.' For these reasons the use of the system was restricted to very narrow limits, as it depended upon individual interest and enterprise only.

"One of the most eminent teachers of the blind and successful of school superintendents in America writes me as follows, under date 17th March of this year: 'The New York Point, as printed, has always been open to grave objections. Many persons who really understood Braille gnashed their teeth that an inferior system should dominate a superior, but Braille lacked a single powerful champion.'

"Very intelligent blind opinion in Boston undertook to do what it could. Mr. Anagnos was openly antagonistic to the New York Point, and, being forced to admit into his school some point system for writing purposes, allowed Mr. J. W. Smith, a blind teacher who understood both the good and the bad points of the European Braille, to try his hand at devising a better. Mr. Smith and his coadjutors laboured assiduously, rearranged the characters on the principle of frequency of recurrence, eliminated what seemed to them the illiterate crudities of the English system,

and called his code 'Modified Braille.' This code he gave to our Convention in 1878, with full explanation as to its merits. It was used in the Perkins Institution from that time on.

"But its presentation at the Conference aroused fierce antagonism and activity among the devotees of New York Point. In fact Dr. Armitage, in his 'Education and Employment of the Blind,' states that the use of modified Braille is not likely to spread beyond Boston.

"Those of us teachers who taught in Boston, after experience in the Royal Normal College, could not but admit the superiority of the new code for school and all other purposes. St. Louis stood by the only Braille she knew—the old Braille; and various other independents were clamouring for any point system superior to New York Point.

"By 1900 the feeling for Braille had become so strong that at the Convention the Braillists met, and appointed a committee of three to decide upon the code to adopt. Dr. Sibley, Superintendent of the Missouri School, and a member of this committee, abandoned the old code after a study of Mrs. Plumtre's exposition of it. His decision made the committee a unit for the new code. The new name 'American Braille' Dr. Sibley gave, and we accepted. We did not consult the British and Foreign Blind Association, first, because we were required to report without unnecessary delay, and secondly, because we felt that any attempt to get them to abandon or modify their code to suit modern ideas would be fruitless. Besides, does not Dr. Armitage state in his book that a similar modification of the Braille had been proposed both in England and on the Continent and turned down?

"So far as I am now aware, every American believer in Braille—except one—adopted our Report, thus showing that American Braillists considered the new code scientific, up-to-date, well adapted to general, and particularly school, use. Though our school work has been revolutionised by so much and so easily obtained embossed matter, yet we cannot but regret that things are as they are. Had it seemed at all a feasible and possible thing to induce the conservative British and Foreign Blind Association to unite with us in a scientific code primarily made for and adapted to school children, and not for adults and Bible

readers only, of course the consummation would have been better for the English-speaking blind.

“ Whilst we cannot but regret the fact that the committee here mentioned omitted to approach the British and Foreign Blind Association on the subject, we fear they had only too good reasons for their surmises as to the futility of such a proceeding, our own experience in 1893 exactly bearing out what they anticipated, as you will hear later.

“ We thus see to what a serious extent personal prejudices and conflicting opinions have been to blame for retarding the progress of education in that particular direction in which we are all peculiarly interested ; and it is to me a matter of wonder that the blind—for there must have been some wealthy and influential ones amongst them—submitted for such a prolonged period to the absurd domination of the seeing in such matters.

“ More than half a century elapsed before the type which has proved itself—at least, I think it has—to be the very best educational medium for the blind was accepted as such by the most enlightened nations in the world. Since 1878 the Braille system, so far as we are concerned, has undergone no generally accepted practical changes or improvements, and up till the present those responsible for its introduction and early propagation in this country have steadily refused to admit into their literature new signs and modifications which were obviously advantageous and in strictly good taste, and which those patriotic and enthusiastic pioneers of modernised Braille—I mean the worthy editors of *Santa Lucia*—first used in their most delightful and deservedly popular magazine. And here, if I may be allowed to digress for an instant, I would like to place on record my deep sense of gratitude for the invaluable aid which they so magnanimously gave me when I introduced Braille printing at the Royal Blind Asylum and School, West Craigmillar, and for the genial and friendly spirit which they have at all times manifested towards me and my work. I venture to think that, among the many benefactors of the blind in this country, there are none whose names are held in higher estimation than the names of the sisters Hodgkin.

“ Now, however, the British and Foreign Blind Association are making a praiseworthy effort to make up for lost time,

and have elaborated a system which may, I hope, in the hands of Providence, go far to assist in hastening on the day when 'Uniform Braille System' shall be no more a myth, but an accomplished fact. To this end they invite criticism of their 'Recommendations,' and, as a true friend reproves as well as praises, I think I cannot do better—keeping in view my desire in this paper to aid in the acquiring of a uniform Braille system—than to suggest by means of a few criticisms passed thereon by myself, the lines which those who have been favoured with a copy of the British and Foreign Blind Association's special committee's 'Recommendations' may profitably follow when they proceed to the consideration thereof.

"My first word is one of congratulation and praise. I think I should be lacking in gratitude indeed if I did not recognise and appreciate, and call for the united thanks and congratulations of all interested in Braille and the blind for such an exhaustive work as they have prepared, and for the immense amount of time, patience, and careful thought which the select committee—and perhaps, at the risk of appearing invidious, I may single out specially Miss Douglas-Hamilton—must have devoted to their labour of love in order to produce so complete and elaborate a scheme of 'Recommendations.'

"They have practically 'ploughed the field,' and, if the ploughing is followed by a wisely directed harrowing and sowing and tending and weeding, there is no doubt that, with the smile of heaven upon it, the harvest will follow; and I believe it will be a harvest of uniform grain; but it will take time—it will take time.

"Now, to proceed, I will simply deal with Grade II., as Grade III. is, in the meantime, beyond me.

"In considering the question of a 'Uniform Braille System,' we must first of all decide whether such system shall, in its construction and application, dominate or be dominated by the beautiful, powerful, historic, and world-wide language of which it is to be the written exponent. I say it is essential that this must be the first question to be decided, as on such decision our attitude towards contractions and abbreviations must rest.

"Are the beauties of the English language to be sacrificed to that indefinite thing called 'space'? Is the historical

etymology of the greatest language in the world to be bartered for a few dots per page, or a few pages per volume of raised type? Is every claim of good orthography to be waived, and correct spelling to be made almost impossible to the blind child in order to satisfy the cravings of those who are slaves to the morbid habit of what, if I may coin a word, I would term 'contractionism'?

"Are we to answer these questions in the affirmative? Then, I fear, the ostensible conclusion must be, that blind readers are deficient in those poetic instincts which enable one to enjoy the beautiful in literature as in nature.

"I have seen people who profess to be passionately fond of flowers collect what here in England you term a posy or nosegay, and, tying all the stems tightly together, place the bunch of flowers in a big vase or bowl in the middle of the parlour table, and think the room is decorated; but who with a true sense of beauty will deny that a *few* flowers, neatly arranged in separate vessels, and placed apart, are more pleasing to the poetic sense and elevating to the mind—in a word, fulfilling their mission more perfectly?

"In exactly the same degree, I maintain, a book of exquisite English literature in immoderately contracted Braille—I especially refer now to words abbreviated by the omission of vowels, etc., and neglect of the rules of syllabification—cannot possibly convey to the reader the sense of delight and the elevating and educative influence which it otherwise might do. If we are to have books in Braille shorthand then let us call them 'shorthand.' Let us elaborate the excellent Birmingham system and utilise its boundless possibilities in a sensible direction; but do not let us massacre the finest literature in the world, and call the resulting carnage 'Braille.'

"I can scarcely fancy even the most ardent of stenographers going into raptures over a passage from Tennyson in Pitman's shorthand!

"In the book of 'Recommendations' we have a list of no less than 820 words or thereby, in the majority of which not the smallest guide is given to the correct spelling of the original word. How, then, are our blind children to learn spelling? Of course it may be said that they are supposed to have learned spelling before they reach this

stage ; but I appeal to you all, what would become of our *own* spelling if all the literature *we* read were served up to us in this skeletonised form ? Nay, verily, it would be a literature of dry bones !

“ Mental strain and discomfort are infinitely more wearisome and exhausting than bodily fatigue, therefore I say, to exchange a somewhat lengthy character and system requiring a *small* amount of mental exertion, for its direct opposite, is far from a desirable exchange.

“ I am free to confess that until recently I was personally in favour of considerable additions to our contraction code, but when, a few weeks ago, I received a printed copy of the ‘ Recommendations ’ of the New Contractions Committee of the British and Foreign Blind Association, a document containing twelve pages of closely printed rules and regulations necessary for the correct writing of Braille as proposed by the said Committee, my hair literally stood on end ; and as, with the aid of a big lexicon, and a friendly lawyer from next door, I strove to wade through and digest all the ‘ when thou shalt’s ’ and ‘ then thou shalt not’s ’ set forth in truly legal fashion, and all the mystifying technicalities involved in the use or abuse of the ‘ Apostrophe Capital Sign,’ the ‘ Primary Initial Sign,’ and the ‘ Auxiliary Sign,’ my dull brain swam, and I had visions of future classes of blind children in the fifth and sixth standards, grey-haired and dejected, dropping immaturally into their graves, or being carried off to the lunatic asylums, having abbreviated their lives and contracted madness in a vain attempt to cram their minds with the rules for contracting everything else. I say it without wishing to make the slightest reflection detrimental to the enthusiastic and well-intentioned Committee who have so ungrudgingly given their time and thought to the production of the ‘ Recommendations,’ but still I must say, and I believe every intelligent teacher of the blind in the country will support me when I say, if this system is to be the ‘ Uniform System of Braille,’ and it alone is to be considered orthodox, and if all its complex and mystifying rules and regulations are essential to the correct writing of it, then we will have none of it ; and this for the simple reason that uniformity under such conditions would be hopeless of achievement even amongst the highly educated, whilst among the

average blind the Braille chaos would be awful to contemplate.

“I would suggest that these rules, elaborate and complex as they are, would have been rendered infinitely more simple and easy to understand if an example of what is meant were given in each case—that is, if such a thing were possible.

“You will pardon me if I quote from page 4, par. 9, of the ‘Recommendations’ in support of my last remarks. ‘Grade II., or the moderately contracted grade. . . . Braille in this grade shall be printed and written subject to, and in accordance with, the preceding recommendations, except Recommendation VIII.; and further, in this grade only the “signs” and “abbreviated” words contained in, or the use of which is by implication authorised by, the said First Schedule hereunder written shall be used, and, subject to the aforesaid, “signs” or “abbreviated” words other than those contained in, or the use of which is by implication authorised by such First Schedule, shall be used, and Braille in this grade shall be otherwise printed or written in accordance with the following thirteen sub-recommendations.’

“Now, I put it to the Conference, do you, ladies and gentlemen, who, as delegates, may be taken to represent the most experienced and intelligent blind opinion in the country—do you grasp the full meaning of this heading? Who is to decide which signs are and which are not ‘by implication authorised’? My view of what is implied may be quite different from yours, and yours from your neighbour’s, yet each has a right to his own opinion, and would doubtless act upon it when writing Braille; then, wherein comes the uniformity? I am terribly in earnest in this, and desire to again emphasise my contention that a ‘Uniform Braille System,’ to be practicable, must have simplicity itself as its primary, secondary, and auxiliary recommendations.

“And whilst, as I have stated above, I quite agree that a number of additional contractions and abbreviations systematically arranged are very desirable (in fact, a number of those included in Schedule I. were my own suggestions), I most strongly urge that the rules, if any, affecting their use shall be as few and as short as possible. To my

mind it were quite sufficient to say that all signs representing letter combinations shall be used when they retain the original sound, excepting when such use would interfere with the correct syllabification of a word. I may, perhaps, make my meaning more plain by taking concrete examples. To be brief, I will mention but two of the best known: 'of' and 'the' are contractions of the third line, and are taught to infants along with the alphabet, not as 'o-f' and 't-h-e,' but as 'of' and 'the.' Now I maintain that these signs, by force of habit and instruction, are impressed on the mind of the child as *sounds* 'of' and 'the,' and not as combinations or sequences of letters, and, immediately the finger recognises the sign, the corresponding sound presents itself to the mind for utterance, and gives a false impression in such instances as in 'Geofrey,' 'roof,' etc., 'the' in 'scythe' and 'breathe.' In each of these latter words the final 'e' is silent, and therefore the sign does not retain its original sound. And again, should you wish to write the past tense of 'breathe' would you write 'brea-the-d'? If so, you interfere with correct syllabification. Or would you write 'brea-th-ed'? If the latter, then you are inconsistent. Obviously the right way to spell all words ending in 'the' is to use the contraction 'th' and 'e'; then, in case of a past tense, you simply add the final syllable 'ed' to the root ending in 'th.' The use of the present participle makes the necessity for such a course even more striking. All difficulties of this kind would, however, be obviated by the application of some such brief and simple rule as I have indicated.

"I note that on page 5, rule 6, of the 'Recommendations' such restrictions are made regarding the sign 'the' except where it occurs in *compound words*. I am somewhat at a loss to understand this modification of the rule. Suppose we turn the simple word 'scythe' into the compound word 'scythe-blade,' it does not alter the fact, or remove the objection complained of. Could I be satisfied, however, that the majority of the educated reading blind do not, in practice, look upon these combinations as *sound signs* rather than *letter sequences*, I would waive my objection on that score, but would certainly, as a teacher, stand out against vandalism in syllabification.

"Again, if we turn to page 4, head ix., 1, 2, we find that

two lower signs such as 'en' and 'in' may not follow each other close together. For instance, in 'peninsula' they may not both be contracted, yet these contractions are allowed if one space intervene, as in the case of 'the *pen* in *his* hand' where we have three lower signs allowed. Now why should this be? Surely if such rule is in the interests of simplicity and to prevent difficulty of ascertaining whether the said signs are in the upper or lower cells—and I can think of no other reason—it were much easier to discern this when the characters are close together and in proximity to full-length characters, or letters, or signs, than when further apart. The same remark applies to the first rule on page 5, and I would suggest that these two sub-rules be eliminated.

"Further, I am much pleased to find that, by rule 10 on page 6, two or more word signs such as 'and, for, of, the, with,' shall, where the sense permits, be used in succession to each other, and I sincerely hope the verdict of the country will be unanimous on this point.

"I am strongly opposed to the use of the apostrophe instead of the period after initials to names or contracted words, such as Col., Capt., Dr., Rev., etc., and I believe my objection is shared by most of those who, like myself, are teachers of Braille, and by the majority of Braille readers.

"Just a few references to Schedule I. of the 'Recommendations' to conclude my criticisms. I ask you to go no further than page 1 of it. Will not 'dot 2 b' (better) be confounded with 'd,' and 'dot 4 b' (brother) with 'j'? Does not '2, 4 b' (blood) resemble 'g,' and '2, 4, 6 a' make a good 'p'? I would suggest that in order to carry out successfully the excellent system of classification adopted in this schedule, in the case of all combinations of what are called front dots (2, 4, 6) with the letters 'a, b, k, and l,' the old rule of writing these letters in the front holes be adhered to, making a wider space and preventing ambiguity; or perhaps, better still, drop the combination with these four letters altogether.

"With most of the other contractions proposed for Grade II., I cordially agree, except in the cases of (on page 4) 'bringing,' which is like 'ou,' and 'brought,' which is the counterpart of 'of.' To abbreviated words, except in a

very limited degree, I am, as a teacher, conscientiously opposed on the ground of spelling. 'Lower b-g-t-n' (for begotten) suggests only one 't' in the word, and such a thing as 'dots 2, 4, er' for 'erroneous' is, to my mind, monstrous. These are two specimens taken at random, but they serve my purpose.

"That there was a real desire on the part of the educated and reading blind of the country for some improvement of the then existing Braille system was clearly evidenced early in 1893. In January of that year the first number of *Hora Jucunda* was published, with its correspondence column, in which, for the first time in the history of the world, I suppose, the blind had the opportunity of giving public expression to their opinions in an embossed journal. This privilege was quickly taken advantage of, and the very first letter to the editor was one on the vexed question of Braille inconsistency. My correspondents, some of them scholars of no mean order, expressed their dissatisfaction in plain terms, and the rules of the British and Foreign Blind Association came in for a good deal of adverse criticism, as well as its autocratic method of controlling Braille.

"I suggested a Union or Association for the consideration of the subject; the idea became so popular that what was termed the *Hora Jucunda* Union was started, with the primary object of obtaining, if possible, 'Uniformity of Braille System.'

"Branches of the Union were speedily formed in various English and Scottish centres, and things promised well for a successful issue. Braille, as at present written, and the rules relating thereto, were to be reviewed, discussed and voted upon, as were all suggestions for improvements or alterations, and a majority of two-thirds was necessary to warrant a recommendation to change the existing code.

"For reasons of their own, the British and Foreign Blind Association, although we sent a special invitation to them, declined to unite with us, stating that they reserved to themselves the right to make alterations in the Braille system.

"Realising the folly of proceeding with such a powerful and well-subsidised opponent in the field, and that under such circumstances uniformity was impossible, on the advice of the late Mr. Buckle we decided to leave the

matter in abeyance. His words to me were : ‘ You have set the wheels in motion : let them grind slowly ; the result is certain to follow, and I hope the day is not far distant when the desired goal may be reached, and a “ Uniform Braille System ” be an accomplished fact.’

“ In order to do this, all those who take in hand to assist in the great work must, as I said before, sink their personal or party feeling, and be willing to act with a single eye in the interests of that community who have so long been the victims of the fads, fancies, and stupid jealousies of individuals and autocratic coteries.

“ Now, a word as to the use of capital letters in Braille. In reply to the circular letter which I recently sent out to educators of the blind, and others in this country, in regard to this and other interesting questions, I received fifty replies. Of these, 27 voted for capitals in *all* embossed literature, 32 in school books, 5 were indifferent, and 13 would have no capitals at all.

“ For my own part, I hold that capitals are as necessary for the blind as for the seeing. Without them literature loses a great deal of its character and force ; and without them embossed books are not an adequate transcript of ordinary books. Probably, if we who see had never been educated to use capitals, we should never have felt the need of them ; but who shall say that they do not give style, character, and distinctness to what we read ?

“ If ladies, for instance, had never been used to the wearing of hats and bonnets, they would have thought such things absolutely unnecessary ; but I fear the majority of them are of a different way of thinking as things are, and I am bound to admit, though they—like Braille capitals—take up a great deal of space, there is a good deal to be said for them on the score of style and character.

“ Most blind children now are taught to use the typewriter. How are they to acquire a correct and adequate knowledge as to placing capitals if they do not find them in their own books and magazines ? The School for the Blind, which holds the foremost position as such in the world, under the most eminent teacher of the blind in the world, himself blind—need I say to whom I refer ? my dear friend, Dr. F. J. Campbell—believes in the use of capitals in Braille, and that after years of patient thought

and experiment. Therefore, had I not been satisfied in my own mind as to the advisability of using them, such evidence as this would have convinced me.

“My concluding remarks I devote to suggesting what are, in my opinion, practical lines of action for the accomplishment of the great end we have in view. These suggestions have been made to me by two eminent principals of blind schools.

“1. The establishment of a National Council, all whose members should be able to read and write fully contracted Braille, and be drawn from various parts of the country, also corresponding members in the Colonies.

“2. The education of the blind being now under the Board of Education, *they* should be the authority for issuing a universal system. This would be an authority which would have weight, and which would have power to issue instructions which no society would be in a position to do. They would obtain the opinions of experts and good Braillists, focussing the opinions, and from them collaborate a system which would be made a universal and authorised one.

“The former, you will note, is practically what the *Hora Jucunda* Union was intended to be, and I have not the slightest doubt it would have been successful nine years ago, and that by now we should have had a ‘Uniform Braille System’ in use, could we have secured concerted action; but ‘It’s never too late to mend,’ and that this Conference may be the means of leading all those taking part in it to give their support to some such measure is my earnest hope. Is it not advisable that the Conference should appoint a committee—a representative committee—to go into the whole question, and report, through the Braille magazines, and by circular to the heads of institutions, their finding? The question is a momentous one—not to be discussed and dismissed in twenty minutes, but necessitating the calm and deliberate consideration of weeks and months. Let us all, therefore, forget ourselves and our own little schemes, fads, and prejudices, and throw ourselves heart and soul into the great work to which our Heavenly Father has called us.”

ARITHMETIC

The first apparatus for tactile working of arithmetic by the blind was invented by a blind man, Nicholas Saunderson, in 1720. It was improved by Dr. Moyes in 1790, and again by McBeath in 1817.

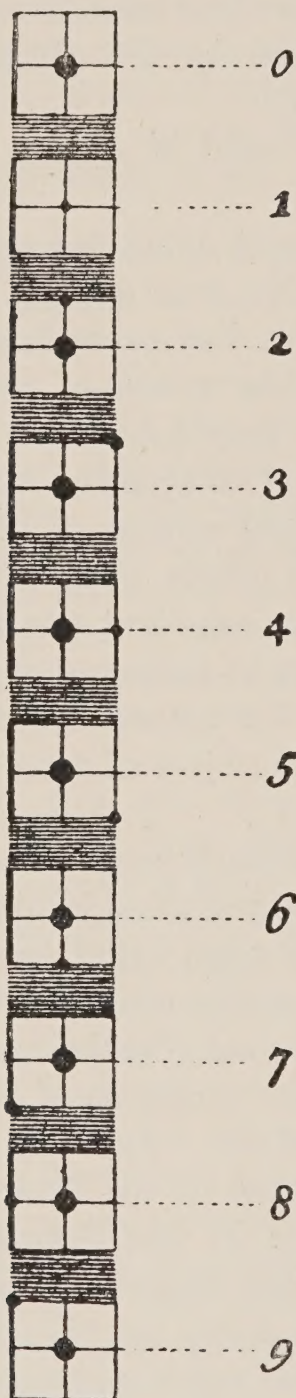
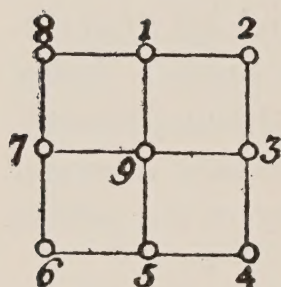
Taylor, of York, also used a system very similar to McBeath's.

McBeath was a prominent character and teacher in the Edinburgh Institution. He was quite a dwarf, standing only 4 ft. 6 in. in height, but exceedingly proportionate throughout. He looked like a boy of ten or twelve, but was a veritable walking encyclopædia. He had lost his sight very early in life, and entered the Asylum as a handicraft worker; but his great extent of knowledge and his aptness at imparting it to others, soon caused his appointment as a teacher, and an excellent one he made. Along with one of his companions he invented the string alphabet, much used at the time for intercommunication amongst the blind, but now only an object of curiosity in our school museums. (See page 25.)

Nicholas Saunderson, already mentioned, born January, 1682, was one of the most remarkable blind men of whom we have any record. Although blind from twelve months old, he rose, by force of genius and laborious study, to be Professor of Mathematics at Cambridge University, to which he was aided by the exertions of Sir Isaac Newton, who held him in high esteem. In 1728 King George II. visited Cambridge, and asked to see Professor Saunderson, of whose remarkable gifts he had heard; and when the Professor attended upon His Majesty in the Senate House, he was created Doctor of Laws by his royal favour.

His first idea of a tangible aid to arithmetic led him to the construction of a board divided into square spaces which he cut for himself. Each space was provided with a pin-hole at each corner, midway on each side, and in the centre, making nine holes in all. By means of two pins placed in varied positions in these holes relative to the sides and

centre of the square he obtained his nine digits. When the square remained unoccupied by pins, it represented a nought.



SAUNDERSON'S NUMERALS.

Later this wooden board was replaced by a metal plate with short lines embossed on its face, forming, as it were, the top and bottom lines of numerous squares; between the ends of these lines were two small holes, and the relative position of the pins in these holes, having regard to the top or bottom line, represented the required figures, $\therefore$, the result being a very near approach to our Braille numerals.

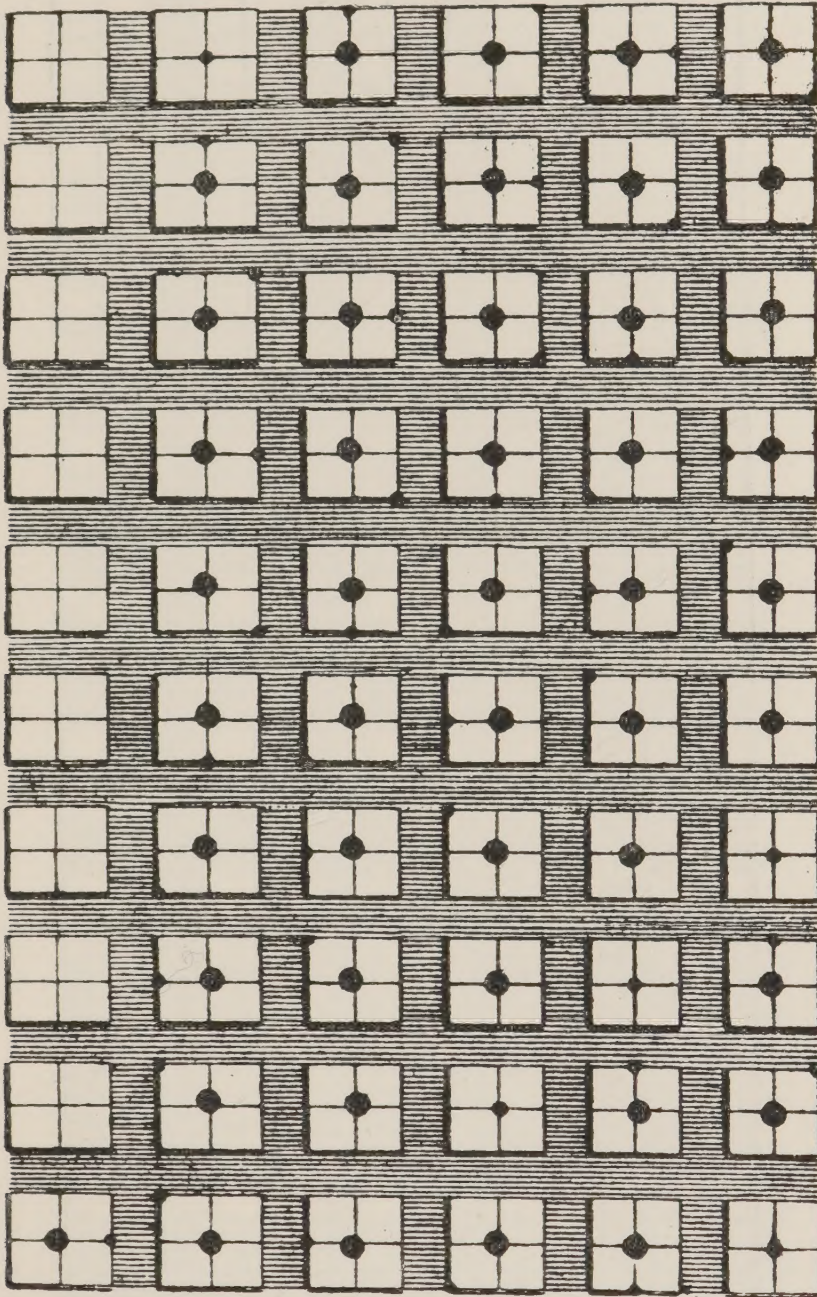
Dr. Saunderson died April 19, 1739.

Moyes's improvement was the use of three variously shaped pegs, which, by their angle or position in the holes, denoted the numbers.

McBeath invented a four-sided peg, with a point raised at one corner on one end of the peg, and a point raised in the middle of a flat side on the other end; so that, by turning the pin in the square hole, eight positions were

obtained representing eight figures—the remaining two figures being made with other pegs.

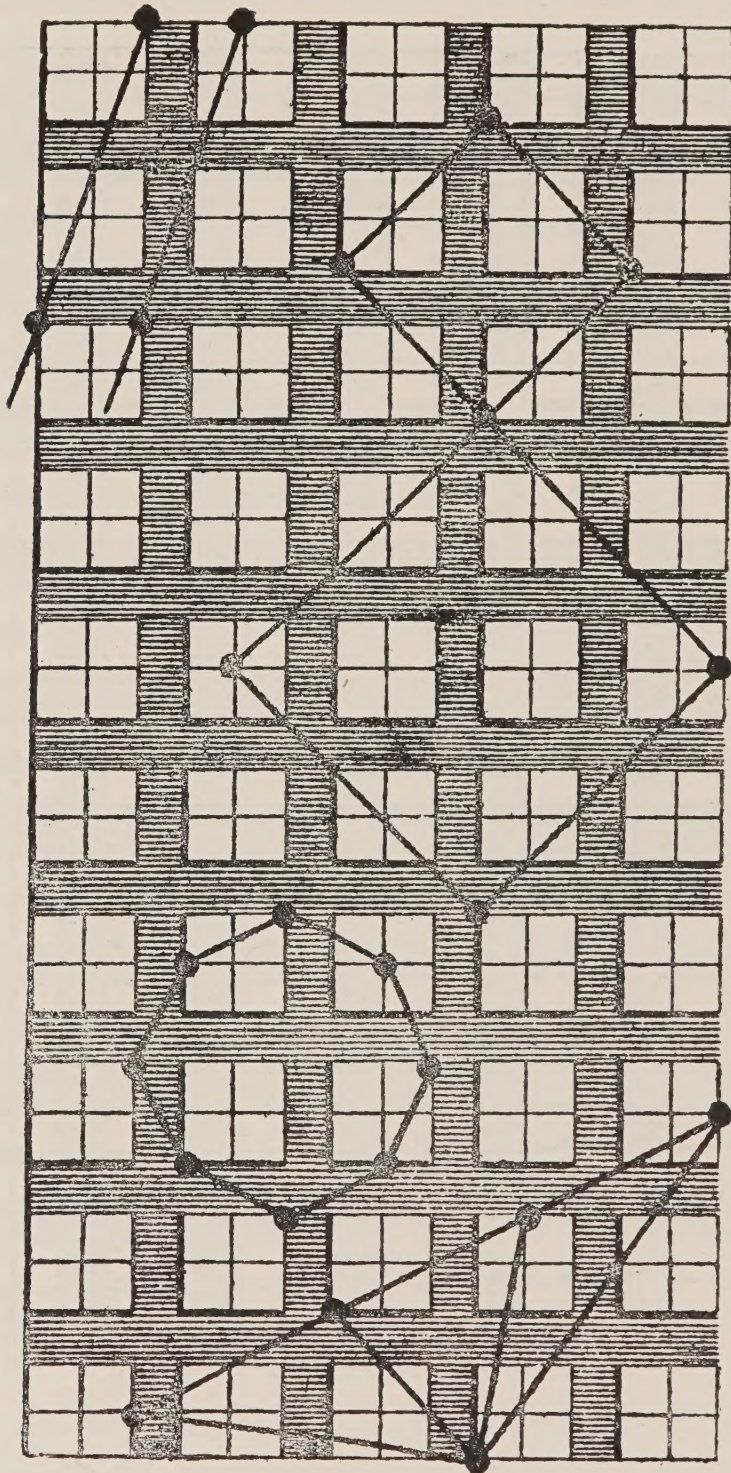
This was practically an inversion of Saunderson's method,



SAUNDERSON'S ARITHMETIC BOARD.

and was a decided advance on anything yet thought of; but, ere long, even this was superseded by another pupil and teacher of the Edinburgh School, named Lang, who made the peg pentagonal, also the hole for its reception in the board, thus securing, by using both ends of the peg,

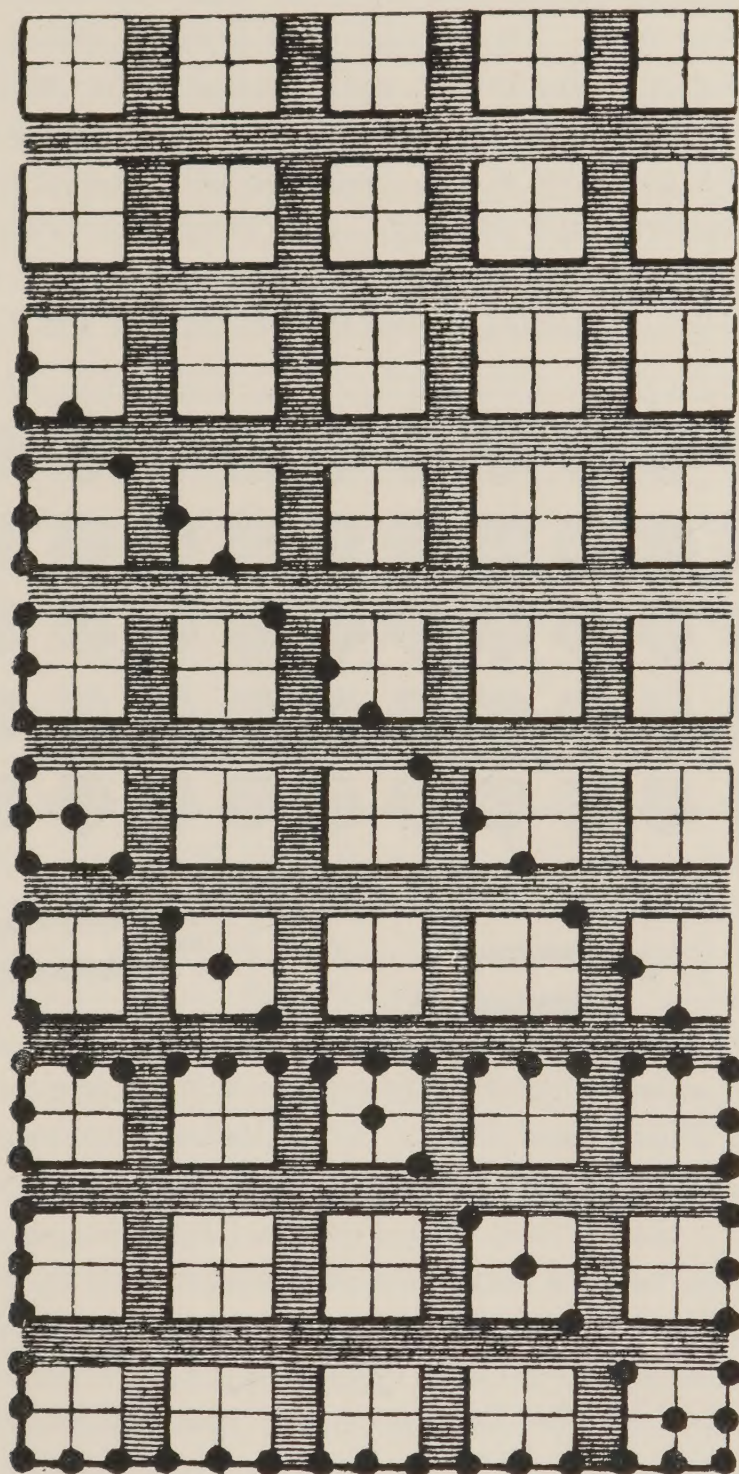
all the ten figures. His peg had a raised line corresponding with one side of the pentagonal face at one end of the peg,



SAUNDERSON'S ARITHMETIC BOARD USED FOR GEOMETRICAL DESIGNS.

and a raised angle on the other end. This system remained in use for fifty years and more ; as a matter of fact, it was

in common use in many schools twenty years ago. Now

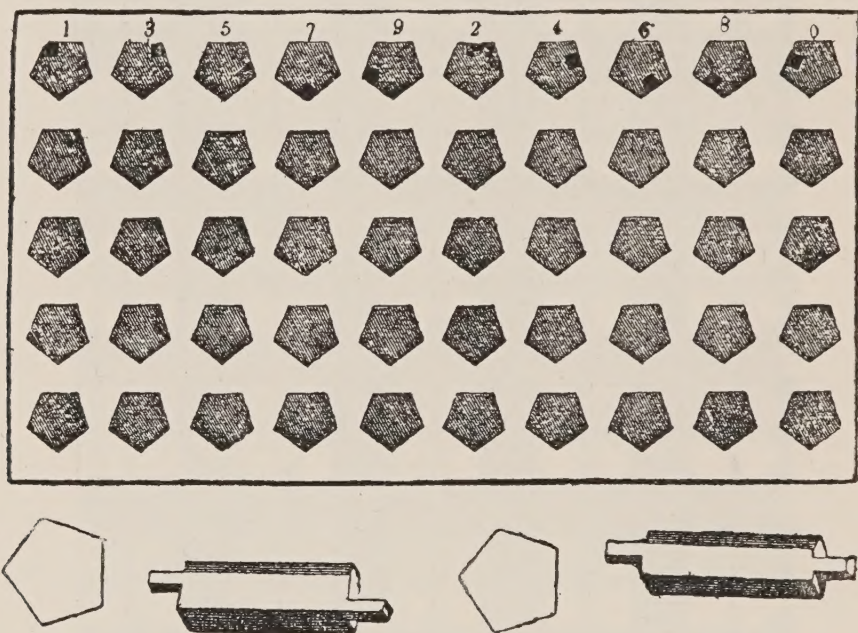


ANOTHER METHOD.

it is altogether discarded in favour of the octagonal board, which is so well known as to need no description here.

One remark, however, must be made, and that is with

regard to the diverse ways in which the present peg is used. Some use the pointed end for the first eight figures, and some the *line* end. The British and Foreign Blind Association recommend the latter, and probably for that reason it is now most generally taught so. It seems somewhat inconsistent to have a line type for arithmetic and point type for reading and writing. For twenty years, in Edinburgh, the point end of the type was used with excellent results. The octagonal board was invented by Taylor, of



Worcester, about thirty years ago, and is known as Taylor's Octagonal Board and Pegs. For algebra the same board is used, but there is a special type for algebraic signs, supplied by the British and Foreign Blind Association.

The Paris method consisted of a board with square holes, the types having the ordinary numerals in relief on one end. It necessitated each type being distributed into its own division in the box or other receptacle after each exercise. It remained in use till the early seventies.

BIOGRAPHIES OF EMINENT BLIND PEOPLE

ARMITAGE, THOMAS RHODES.—The name of Thomas Rhodes Armitage will always be a household word amongst

the English-speaking blind, and had the public generally been aware of the nature and extent of his labours, it can scarcely be doubted that his last resting-place would have been amid the "glorious glooms" of Westminster, and not in far-off Tipperary.

Dr. Armitage, although descended from an old Yorkshire family, was born at Tilgate Hall, in Sussex, in 1824. He was the sixth of seven sons, several of whom became notable men. In 1831 the family removed to Avranches, in Normandy, and two years later to Frankfort. In 1834 he was sent with his younger brother to a school at Offenbach, kept by Dr. Becker, the grammarian, and here he remained for two years. Upon leaving, he could speak German as fluently as English, an accomplishment which proved of great service to him and to his cause in after life. Then, after a short stay in England, the family went to Paris, where young Armitage attended lectures at the Sorbonne, and where his studies were superintended by a German tutor. Later he studied botany whilst residing at a shooting-forest which his father had rented in Brittany. Returning to London in 1840, he was entered as a medical student at King's College, but, after working hard for twelve months, his sight became so much impaired that a rest of two years was deemed necessary. After this interval he resumed his studies, and in due time took his diploma as surgeon, and later the degree of M.D. Subsequently he became a Member of the Royal College of Physicians, and practised for many years in the metropolis.

He was very successful in his profession, but this success entailed so much work on his eyes that they again broke down, and this time so seriously that, in order to save any portion of his sight, he was compelled in 1860 finally to relinquish his calling. This was a great trial to one who was proud of his profession, and who was rapidly gaining distinction in it.

When this mischance befell him, Dr. Armitage was in his thirty-sixth year, but, instead of repining at the infirmity

which had overtaken him, he soon began to turn it to the advantage of his fellow sufferers, who equalled him in fate, though not in fortune. This blind world, Dr. Armitage soon found, was anything but a beautiful place, and, characteristically, he began his attempts to improve it with that class whose lot was the most deplorable of all, viz. the indigent blind of London. He joined the Committee of the Indigent Blind Visiting Society, which, although it had been in existence for five-and-twenty years, had not, up to that time, answered the expectations of its founders. In 1865 Dr. Armitage persuaded the committee to appoint a blind man as one of their visitors. This departure proved a great success, and vacancies as they occurred were filled up in a similar manner; and now the Society's visitors are all chosen from the blind.

After thoroughly reorganising the Society, he began in these early days gradually to endow the "Samaritan Fund," which was a sort of "charity within a charity." To this object alone he devoted no less than £17,000, the interest on which is used to help the blind in times of extreme need. When Dr. Armitage joined the committee about £1,000 was distributed annually to 250 persons; in 1895 nearly 1,100 persons received more than £6,000. The extent of these operations may be judged from the fact that at two convenient centres work is found for upwards of seventy blind women. The beautiful goods produced by these women are, as far as possible, sold to the public.

As Dr. Armitage moved about day by day amongst the blind of London, he found that, besides those who had lost their sight in middle life or old age, there were great numbers who had been blind from birth or early childhood. Most of these were ex-pupils of blind institutions which had professed to fit them to earn their own livelihood, but, so far from this being the case, nearly all had drifted into pauperism. Accordingly, Dr. Armitage, though he had never relaxed his efforts to better the condition of this helpless class, soon began to look about for one amongst

the existing institutions which would be willing to try new methods. This search was by no means encouraging, and he determined as soon as possible to found an institution, where new methods should be tried and different results obtained. It was fortunate for the blind that he came to his self-imposed task qualified in every way to gain his ends. By nature he had been endowed with a large heart, he had received an education which had peculiarly fitted him for the work, and by inheritance he possessed a large fortune.

In 1868 Dr. Armitage founded the first of his great societies. Previous to that date he had passed much time in the Paris Blind Institution, studying the methods of education and training which obtained there. He was surprised to find that no less than 30 per cent. of the pupils were able, on leaving, to support themselves as organists, teachers of music, or piano-tuners. In England, not 1 per cent. were able to do this. In founding the British and Foreign Blind Association, Dr. Armitage hoped to bring order out of chaos as to the methods of education amongst the blind in England, and especially in the vital matter of the types used for reading and writing.

This was in the year 1868. Being convinced that many of the difficulties surrounding the education of the blind had been produced by sighted managers of blind institutions, who, with the best intentions, had selected types adapted for the eyes of the sighted rather than the fingers of the blind, Dr. Armitage called to his aid half a dozen blind gentlemen, who, with himself, formed the first council of the Association. For two years they carefully studied every known type. Types there were in abundance and to spare—Lucas, Frere, Roman, Moon, and many others—but none of them could be written, and were, therefore, comparatively worthless for educational purposes. The only one now surviving is Moon, and that because it is considered suitable for the hard hands of working men who have lost their sight in middle life or old age. In 1870

the council completed their arduous preliminary task, and decided that the type of the future was to be the one invented by the illustrious Frenchman, Louis Braille. And in that wise choice lay a boundless promise for the future.

Up to this time Braille was unknown in our institutions, but now it is taught in all of them, and before long no blind school will use any other. It had for many years been the official type in France, and one can only wonder that its paramount merits had been so long overlooked in England. Dr. Armitage gave the Association rent-free offices in his town house, 33, Cambridge Square, Hyde Park, paid the clerical staff, and year after year, with large gifts, balanced the excess of expenditure over income.

Having now got the necessary alphabet and apparatus, Dr. Armitage was ready to advocate the new methods of education for the blind. He gave a lecture at the Society of Arts, in which he explained the merits of the Braille alphabet and the Braille musical notation, which latter my blind musical friends tell me is more wonderful even than the former. He told his audience of the remarkable results, as they were then deemed, which had been obtained in France by giving a musical training to all the pupils qualified to receive one. He had hoped that one of the existing institutions would have been induced to try the new methods, especially as he was prepared to pay the whole cost of the experiment.

At this critical juncture Mr. (now Sir Francis F.) Campbell called on Dr. Armitage. He was returning to America after completing his studies in Berlin. Before visiting Europe he had been a tutor in the Perkins Institution, Boston. In that institution he had practically demonstrated the advantages to the blind of a really superior musical education. Of twenty pupils who had been entrusted to his care nineteen had been turned out quite able to support themselves.

Dr. Armitage read parts of his lecture to his visitor, and

numerous conferences followed. In the end, after again trying in vain to get one of the old institutions to make the experiment, it was decided to found the Royal Normal College. It was opened with two pupils in the spring of 1872. These were both from the town of Leeds, and both turned out well. Dr. Campbell was the first, as happily he has been the only, principal. Dr. Armitage and the late Mr. Gardner each gave £1,000 towards the preliminary expenses, and, looking through the annual reports, one everywhere comes across sentences like the following: "The council is once more deeply indebted to Dr. Armitage for his generous gift of three organs, very urgently needed, at a cost of a thousand guineas, and for a further sum of £275 spontaneously offered, etc."; "By the kindness of Dr. Armitage the deficit of £1,200 on the year's working has been paid off." The report published in October, 1881, tells of gifts from Dr. and Mrs. Armitage amounting altogether to more than £7,500. In 1883 he gave more than £1,500, besides equipping the girls' gymnasium and enlarging that of the boys. But, as Dr. Campbell once said to me, "Why talk about Dr. Armitage's gifts? He was always giving."

One very striking instance of this, Dr. Campbell has related. He was in America, and, seeing some expensive athletic apparatus which he thought should be bought for the college, he wrote to Dr. Armitage. The latter replied: "Buy what you deem necessary, and draw upon me for the amount." Dr. Campbell has placed on record in eloquent words his opinion of the constant and generous support which he received for eighteen years from his friend.

In 1886 Dr. Armitage lectured for a second time at the Society of Arts. He was able to hold up the Royal Normal College as an object-lesson to the managers of all other blind institutions. When one remembers that previous to the founding of the Royal Normal College hardly 1 per cent. of those pupils in the old institution who received a so-called musical training were able to support themselves,

it will be seen what a complete revolution has been wrought in this branch of blind education.

In the same lecture Dr. Armitage said that similar results would follow in the case of those who were trained to handicrafts, if the plan known as "The Saxon System" were adopted by our institution. He had, with his usual thoroughness, examined the system on the spot. He had passed ten days visiting the blind of Saxony in their own homes in the small towns and villages about Dresden. He found them one and all able to support themselves, and this because, from the first moment of entering the institution to learn their trade to the last moment of their lives, a friendly hand was extended to them. Moral and material support was given them, and a special fund of £1,500 per annum, which had been established for the purpose, was found ample to prevent any of them from drifting into pauperism. As there were 300 former pupils to be looked after, it follows that the average yearly help afforded to each was only £5. So convinced was Dr. Armitage of the necessity of compelling our institutions to adopt this system, that at the time of his death he was engaged in arranging a deputation to the Education Minister to ask that a clause might be inserted in the Bill then being drafted, making the supervision of former pupils a condition of receiving the Government grant.

It has only been possible in this sketch to tell what Dr. Armitage did for the blind by re-organising the Indigent Blind Visiting Society, and by founding and fostering the British and Foreign Blind Association, and the Royal Normal College and Academy of Music at Upper Norwood. The services rendered by Dr. Armitage on the Royal Commission, which was presided over by Lord Egerton of Tatton, were invaluable. There is a modest allusion to his work upon it in a lecture which he delivered at the Society of Arts in 1886: "I hope that the result of our inquiries may tend to the benefit of those to whom for many years I have been devoting my life." These inquiries

did result in the passing of a Bill through the Legislature which leaves little to be desired beyond the raising of the school age from sixteen to nineteen years, so that the pupils may be turned out, not only well educated, but thoroughly trained in some handicraft or profession ; and then, with the supervision which Dr. Armitage so strongly advocated, at least five out of every six would be self-supporting. Another signal service he rendered to the blind was helping to prevent Mr. Gardner's splendid bequest of £300,000 being misused in the proposed erection of a vast asylum at Windsor. The trustees, with the assistance of their able secretary, Mr. H. J. Wilson, are carrying out in an admirable manner the wise scheme imposed upon them by Lord Justice Fry. Mr. Wilson writes : " Many a time he has come to see me, and, having told me of the needs of a certain blind person, he invariably promised to give half of the requisite sum if the Gardner Trust would promise the other half."

Only a few of the large sums given to the Royal Normal College have been mentioned, but in addition Dr. Armitage paid the fees, in whole or in part, of many of its pupils. Not long before his death he gave £1,000 to the splendid workshop at Belfast, which he regarded as a model of what such places should be, and, in fact, the sums he distributed and the help he afforded were not much less important than those of the Gardner Trust itself. He helped with what he called small loans hundreds of the needy blind throughout the country, and these loans were almost always repaid. The following story was told by his secretary, now dead : " I remember, during the Royal Commission, a blind man named Alston calling one morning to say that he had a pass on the Great Western to see some relatives in the country. He had no money, and thought his coat was too shabby. The money was given to him, and Dr. Armitage, turning to me, said, ' Do you think my coat will fit Alston ? ' I replied, ' It will.' And I put it on Alston, to his great delight. Dr. Armitage went upstairs on to a balcony to take club exercise, which he often did. At twelve

o'clock I went up and asked him if he remembered that he had to attend the Royal Commission at half-past. Of course he was in his shirt-sleeves, as Alston had his coat. He went upstairs to put on his coat, and in a minute or two came down, and I can now, as it were, hear him laughing. When he could speak, he told me he had given away his last coat, and had not one to go to the Royal Commission with. Dr. Armitage took care that the blind scribes and others employed by the Association were provided with good woollen clothing."

Dr. Armitage not only visited almost every blind institution in this country and on the Continent, but also those in Canada and the United States, getting and giving information. He tried, but in vain, to rescue Canada and the United States from the evils which accompany the use of many types. He published the results of his experiences and researches in a volume entitled, "The Education and Employment of the Blind: What it has been, is, and ought to be." This work should be carefully studied by every one connected with blind institutions.

Dr. Armitage served the blind in yet another field. He invented a process of stereotyping which enabled blind men to do this work, and by an ingenious contrivance he greatly increased the rapidity and comfort with which English Braille can be read.

It was Dr. Armitage's custom to pass the autumn and early winter at Noan, near Thurles, his Irish residence. One gloomy afternoon, in the month of October, 1890, whilst riding from Noan towards Cashel—for, despite his deficient sight, he was a good horseman—his horse, which, it was afterwards discovered, had been badly shod, stumbled and fell, and so injured his rider that, when Dr. Armitage was carried to the house of a medical friend in Cashel, it was discovered that the least serious of his injuries was a double fracture of the arm. After some days hope of his recovery was being entertained, when, early on the morning of the 23rd, his nurse noticed a sudden and decided change,

and in a few minutes he had passed away. On the 28th he was laid to rest in the churchyard of Magorban.

Many of those who knew him best think that neither his generosity nor his ability formed the most distinguished trait in his character, but his loving, tender sympathy. This "very perfect, gentle knight" made even the most uninteresting and commonplace amongst those who sought his counsel and help feel that he took a special interest in each individual case. He possessed all the qualities which make a great man; he was courteous, candid, high-minded, dignified, resolute, generous. He has not left a dead, unprofitable name, but one which must give rise to noble deeds.*

BARNARD, THE REV. THOMAS, M.A.—Was born at Weston-super-Mare on August 15, 1871, whence his family removed to Bath, in 1874. As the result of a severe accident while at play, he became totally blind in early childhood, and was therefore sent, in January, 1877, to the School for the Blind and Deaf and Dumb, at Bath. Having obtained a Gardner Scholarship, in September, 1883, he became a student of the Worcester College. From this college, in 1891, he was the first blind student to obtain the certificate at the Oxford Senior Local Examination, and this entitled him to proceed to the University without the usual examination in lieu of Responsions. In 1893 he obtained Classical Honours in Moderations at Oxford, and was also elected to the scholarship founded in memory of Mr. Fawcett, the blind Postmaster-General. In 1895 he took his B.A. degree, with Second Class Honours, and proceeded to his M.A. degree in 1899. In 1898 he was ordained deacon and was raised to the priesthood in the following year, having been gospeller-deacon and also senior priest of his year. His first curacy was to the little parish of Llandeud, Mon., under the Rev. J. Swinnerton, whom

* "A Friend and Benefactor of the Blind," by Alfred Hirst, *Sunday Magazine*, November, 1896.

he also assisted in his work for the Church Pastoral Aid Society, and whose only daughter he married in 1899. In this year he became curate of St. Saviour's, Plymouth, and in 1902 he was appointed to the curacy of Christ Church, Paignton, South Devon.

In 1905 he was appointed to succeed the Rev. J. B. Nicholson, as headmaster of his old college, at Worcester, which, in 1889, had been made an endowed public school, and in 1902 had found a permanent home in a new building of its own.

Since entering upon his headmastership at Worcester, Mr. Barnard has thoroughly re-organised the work and general arrangements of the college. He has published a revised system of writing and printing Greek, Latin, and mathematics in the Braille type; was the author of an article on "The Higher Education of the Blind," in *The Blind*, of October, 1905; while one of his hymns has found a place in a well-known collection. He holds a general licence to officiate in the Diocese of Worcester, is also honorary local secretary to the British and Foreign Blind Association, and is a member of the Executive Council of the College of Teachers of the Blind, for which he acted as one of the examiners for the year 1908.

BRIDGEMAN, LAURA.—This American blind, deaf girl was the first to concentrate the attention of the civilised world on the possibilities of successfully educating such cases. To Dr. Howe, the Principal of the Boston (Mass.) School for the Blind, belongs the distinction of emancipating the intelligence of Laura Bridgeman. The work was slow and tedious. Delicate of physique, Laura never rose to the heights of knowledge and achievement acquired by Helen Keller, David McLean, and a score of others so afflicted; still what she did achieve was, at the time, considered little short of miraculous.

CAMPBELL, SIR FRANCIS J., LL.D., F.R.G.S., F.C.T.B.—The most prominent blind man in England, and we may

say in the world, at the present time, and indeed for the past quarter of a century, is Francis Joseph Campbell, the popular principal of the Royal Normal College for the Blind, Upper Norwood.

He was born in Franklin County, Tennessee, on October 9, 1832. When about three and a half years old, while at play, an acacia-thorn ran into his eye. Inflammation ensued, and both eyes were destroyed.

A few years afterwards, his father, suffering heavy losses, had only a small farm remaining to him, and the whole family had to work early and late, with the exception of little Joseph, who was not expected to do anything, on account of his blindness. But one day, in his father's absence, the little lad persuaded his mother to allow him to help his brothers to cut wood, and his father was so pleased at what he had done that he bought him a new axe, little Joseph thus learning for the first time the sweetness of toil, and of being able to do *something*.

In 1844 he was sent to a blind school which was opened at Nashville, where he learnt the embossed alphabet in three-quarters of an hour, thus giving a forecast of the marvellous persistency which has characterised his whole life.

At music he was considered hopeless, and was told he could never learn it, but must take to basket- and brush-making. Determined to learn music, however, he hired one of the boys to give him lessons, and fifteen months later gained the prize for piano-playing.

The whipping of slaves, although quite common, produced in his young mind impressions of loathing and horror, and he became a pronounced abolitionist. His kind heart went out to all the dumb animals on his father's farm, he being especially devoted to the horses.

As his father was too poor to give him a University education, he determined to educate himself, raising the required money by giving music lessons. The following year, when just sixteen, he was appointed teacher of music

in the very institution where he had been told he could never learn music.

We now find the blind boy fairly plunged into life as a young man, maintaining himself by music lessons, while he found time to continue his education in other branches, including mathematics, Latin, and Greek. But burning the candle at both ends produced the natural result, and young Campbell's health gave way, so that he had to rusticate for a while. He spent his holiday on a tree-felling expedition, taking his full share in the exciting but laborious work, thus laying the foundations for his sound and practical views on the value of physical exercise for the blind.

On returning to Nashville, he went on a tour of the State to *scour the country* for pupils, and was able to persuade many reluctant parents to send their blind children to school.

In 1856 he entered Harvard University, and the same year, in August, married a Miss Bond, of Bridgewater, and within a month of that day all his savings were lost through the failure of a firm to which he had entrusted them. Vicissitude followed vicissitude; on one occasion he was very near being lynched on account of his abolitionist proclivities.

After a short period of temporary work at the Wisconsin Institution for the Blind, he had to leave it, to take his wife for medical help to Boston, being so poor that he could not afford more than sixpence a day for his food.

At this juncture his indomitable perseverance and real ability secured his appointment as musical instructor at the Perkins Institution for the Blind in Boston, then in charge of Dr. Howe. Here his life was one of continued success; he carried out his theory of physical exercise conjointly with music lessons, taking his pupils daily to swim in the open sea, and teaching them to skate in the winter.

Seven years later, in the winter of 1868-9, his health again broke down, and, with his wife a confirmed invalid,

he acceded to Dr. Howe's entreaties to take his wife and son on a tour to Europe; so in August, 1869, he set sail. He visited Leipsic and other conservatoires of music, learning all he could of means and methods, and, reaching London again, in January, 1871, was on his way home to America, when he met Dr. Armitage, as told in our account of the Royal Normal College.

In 1873, he lost his wife. She died in August, leaving him a son—Mr. Guy Campbell—now well known throughout the kingdom, not only as the vice-principal of the Normal College, but as a high authority on athletics.

In 1874 Mr. Campbell took to himself a second wife in the person of Miss Faulkner, an American lady who had been one of his first lady assistants at the Normal College, and she it is who has been such a real helpmeet for him in his great work.

A few years later the honorary degree of LL.D. was conferred on him by Glasgow University.*

It is not too much to say that Sir Francis Campbell and the Royal Normal College have revolutionised blind education, especially in regard to music and physical training in this country. He has shown, by his own life, and by the successful blind men and women whom he has turned out, to what positions of eminence and usefulness blind people may attain; and all educators of the blind, and those interested in the course of the welfare of the blind, owe him a debt of gratitude which it is impossible to estimate.

As Mrs. Craik says, in her biography of him in her beautiful work, "Plain Speaking," "He makes use of all his opportunities." His retrospect must be of a cheering nature.

That the King should have seen fit to include him in the list of Birthday Honours for 1909, by conferring a knighthood upon him, comes as no surprise; the honour is well-deserved, both by himself and Lady Campbell.

May they live long to enjoy it!

* And on October 23, 1909, the Fellowship of the Royal College of Teachers of the Blind was conferred upon him.

FAWCETT, HENRY.—Was born at Salisbury, Wilts, in the year 1833. At Cambridge he became acquainted with John Stuart Mill, who had a decided influence on his life. The loss of his sight, through the accidental discharge of a gun in 1858, only increased his intellectual activity. He was a keen sportsman, and continued an expert angler all his life, as well as a clever horseman.

In 1863 he published his “Manual of Political Economy,” which led to his appointment to the Professorship of Political Economy at Cambridge in the same year, a post which he held till his death. His lectures were published as “The Economic Position of the English Labourer”; “Pauperism: its Causes and Remedies”; “Free Trade and Protection,” etc. As an economist he was content to be a faithful expositor of Mill. He entered Parliament as Member for Brighton, in 1865, as an advanced Liberal, took an independent attitude regarding education in 1870, but was largely instrumental in defeating Mr. Gladstone’s Irish University Bill, in 1874. During the Parliament of 1874–80 he showed so marked an interest in Indian affairs that he became known as “the Member for Hindustan”; and he also advocated the preservation of commons in the interests of agricultural labourers. In Mr. Gladstone’s second administration he became Postmaster-General (1880), and introduced several practical reforms, such as the parcel post (1882) and devised many schemes to encourage thrift, notably the “stamp forms,” to enable a shilling at a time to be saved in penny stamps affixed thereon, and afterwards credited in the Post Office Savings Bank.

Since his death, which took place in 1884, his widow, the well-known Mrs. Henry Fawcett, has continually identified herself with every movement for the amelioration of the condition of the blind, presiding at conferences, etc., and helping on the work by every means in her power.

FRASER, DR., Superintendent of the Halifax School for the Blind, Nova Scotia, is an example of what skill and

perseverance can accomplish in the face of great difficulties. His paper on "Commercial Training of the Blind," at the Manchester Conference, 1908, roused great interest in the subject.

GILBERT, MISS.—The pioneer of workshops for the blind. See the book on her life, by Frances Martin, published by Macmillan & Co.

HENDRY, MR.—Totally blind. One of the most enthusiastic and successful superintendents of blind institutions in the world. In charge of the Industrial School for the Blind, Adelaide, South Australia. On his visit to this country, a few years ago, he impressed every one by his geniality and business acumen.

KELLER, HELEN.—Probably one of the best-known names in the world just now, especially amongst those interested in the blind, is that of Helen Keller. It is not necessary to say much about her here, as the two books written by herself, "The Story of my Life," and "The World I Live in," published by Messrs. Hodder & Stoughton, London, come within the reach of all, from blind institution or other libraries, and give a much better idea of the education of this remarkable American blind deaf mute than can be obtained through any other channel.

As she herself states in the first-named book, Helen Keller was born on June 27, 1880, in Tuscumbia, a little town of Alabama. She is of Swiss descent through her father Caspar Keller, a native of Switzerland, who settled in Maryland.

From her earliest days she was a precocious child, and at the age of six months could say, "How d'ye" and such words as "tea" and "water." She walked the day she was a year old.

When only eighteen months old she was seized with acute congestion of the brain and stomach, and her life

was despaired of. She recovered, however, but was, by the illness, bereft of hearing and sight.

The name of Miss Sullivan is, one may say, inseparable from that of Helen Keller. She was the young lady who was selected as the companion-teacher of the remarkable child, and, through her devotion, tenderness, enthusiasm, and skill, had the privilege of setting free the imprisoned soul.

The child is now a grown young woman of twenty-eight, has passed with distinction through Harvard University, and given to the world two of the most remarkable books of the age—books that it is nothing short of an inspiration to read. Students of psychology will find much to ponder over, and those critics who dispute the possession by mankind of a sixth sense will be puzzled to find any other satisfactory explanation of the phenomenon Helen Keller.

McLEAN, DAVID BROWN.—As the following account of this youth will show, it is not America alone that can boast of wonderful achievements by one bereft of hearing and sight. The education of David was conducted on entirely original lines—taking the possession of a sixth sense as a foregone conclusion—and has proved so eminently satisfactory, that the story of it is given here, as contained in a paper read at the “Deaf and Dumb Conference,” in London, in 1903.

David Brown McLean was born in Edinburgh on December 12, 1892. When five years of age both sight and hearing began to be affected, as the result of a cold. The early symptoms being neglected, disease laid a firm hold of both organs, and in less than a year the child was totally blind and deaf.

There appears to have been a predisposition to blindness, however, for his maternal grandfather had two blind sisters, their parents being cousins.

In his early days David led the free and active life of a street arab, and at the age of five must have been a most

observant and precocious child, for he had laid in a store of knowledge—both useful and undesirable—which a more than ordinarily retentive memory preserved through the succeeding five years of silence and darkness.

When the boy was brought to the Royal Blind Asylum and School, West Craigmillar, on May 13, 1901, a very cursory examination satisfied me that in spite of his double affliction David was a child of more than average intelligence, and I was convinced in my own mind that his was a case which, under careful special treatment, would develop interesting and practical results.

He was admitted to the school as an ordinary pupil, and I devoted as much time and attention to him as my multifarious duties would allow, carefully studying the individuality of the child and noticing his every trait and movement, in order that I might catch, if possible, some glimpse of an approach to the child's intellect.

One habit David had which I have observed in every blind deaf mute child which has come under my notice—namely, that of beating the sides of the head with the palms of the hands and violently flicking or pinching the ears. In his case, however, this peculiar habit was present only in a comparatively mild form, probably because his intellect was practically unimpaired. From my own observations and the reading of reports of similar cases in America and on the Continent, I think it is safe to assume that one may fairly gauge the amount and condition of the intellect by the violence and frequency of the paroxysms of this beating of the head. Where the intellect is very weak and the brain practically imbecile other and more vicious habits exhibit themselves, as biting the hands and fingers, often to the effusion of blood, without any apparent suffering being experienced.

One child, I remember, who came under my charge many years ago, a little girl, Marjory Cumming, was an example of this kind. She was absolutely intractable and apparently lower in the scale of development than many

of the brute creation. She was repulsive to a degree in appearance and instincts, and shrieked and screamed for hours without intermission. One thing only appeared to have a taming or quieting influence upon her, and that was the vibration caused by the playing of the big organ, which seemed sometimes to have the power even of giving her a certain amount of pleasure. Her biting proclivities were evident from the raw condition of her finger-ends, and were well known—in some instances too well known—by the other pupils in the school.

In vain I attempted to rouse a spark of intellect. On one occasion, wishing to discover if the ticking of my watch in contact with the teeth would produce any effect on her, as I had often known it do on other blind, deaf mute children, I opened her mouth and let my watch rest on the lower incisors, when, in an instant, down came the upper jaw, and my poor watch was reduced to a wreck of its former self—almost severed in two. A demoniacal laugh followed, and then a series of ear-splitting yells and screams. Congratulating myself that my fingers were still intact and contiguous to my hand, I quietly made up my mind that, the next time I desired to try the experiment, I would, like the conjurors, borrow somebody else's watch. This by the way, however. I simply mention it to show that I have had experience with blind deaf mutes of varying intellects.

Now, as is well known to every true teacher, the best way to combat bad habits and tendencies is not a negative but a positive one. That is, instead of devoting too much time and attention to the stopping of that which is objectionable, a *beneficial* outlet should, if possible, be discovered for the previously misdirected energy, and the attention of the pupil attracted and turned in other and useful directions.

At the time of his admission to the school David had lost the power of articulate speech, and could with difficulty make himself understood by a few words uttered in an almost incoherent whisper; whilst the only way in which

we could communicate with him was by nodding or shaking the head (his hand touching it) in reply to his questions, a very imperfect mode of communication, it is true, and one which must have been puzzling and unsatisfactory to the little fellow.

Poor David! In those early days he would cry and scream in a most distressing fashion when left alone, and often when in the company of others; whilst we could only look on in utter helplessness, being as unable to ask him the cause of his unhappiness as we were to give him back his sight and hearing.

All in the house did their best to amuse and interest him, and in his subsequent education I have been ably seconded in my efforts by those assistants in whose class David had been placed. Toys and other objects were placed in his hands, and often his face would beam again with bright intelligence as he recognised something he had known when he could see. Any mechanical toy was a treasure to him, and his fingers would deftly examine all the working parts till he satisfied himself as to the construction. The sewing-machine was, from the first, a wonderful attraction, and he never rested till he was promoted to the position of operator thereat, but that was not for some months.

His schoolwork in its first stages was purely kindergarten—brick-building, bead-and-wire work, etc.—with a short time daily devoted to careful attempts on my part at voice-production.

This was a more difficult task than is probably at first realised. Of course the boy had no conception what I wished him to do. In the course of giving an ordinary deaf mute his first lessons in articulation, the teacher can easily make him understand by sign and gesture that he is to imitate, but, when the avenue of sight is also closed, the difficulty is very great; and I spent many hours before I succeeded in getting David to produce the articulate sound of “ā” (“ah”). This is how I accomplished it. Following

on orthodox lines, I began by opening his mouth and letting him feel that I also had opened mine ; then that his tongue was to be kept down like mine. Then, placing the back of his left hand on my larynx, I loudly sounded “ ā,” much to the boy’s amusement ; but no articulate or resonant sound escaped him. I then tried the breathing with wide open mouth on the back of his hand, but all to no purpose. At last it occurred to me that if I could make him laugh out aloud I should make him produce involuntarily the sound I wanted. By tickling him under the arms I achieved this, and, placing the back of his fingers on his own larynx at the same moment, he appeared to immediately realise the similarity of the vibration to that he had noticed in mine, and then the repetition of “ ā ā ā ” caused him considerable merriment. After much time and patience, and by the aid of many tricks and devices which came to me almost instinctively, I got David to say “ ā, ō, ū,” and the other vowels, “ ä ” being the hardest to get ; but all the while, of course, he had not the slightest idea what I was after. (He did not appear to realise in the smallest degree that he was at school. He could only come in contact with one or two boys at a time, and he would not recognise much difference between them.) I could not, while he was pronouncing “ ä,” point to a printed letter and make him understand by signs that that was the written sound. To have placed an embossed letter, also, under his finger would have conveyed no idea whatever, because, as yet, he was totally ignorant of the Braille alphabet. I then proceeded to the consonants, many of which present almost insuperable difficulties to those who are deaf only ; but even at this stage my little pupil evinced a desire to learn, which was most encouraging and helpful.

It was at this juncture that I resolved on the experiment which has since proved so successful in opening up an avenue to David’s brain, and in enabling me to carry on his education on practical and scientific lines.

Being thoroughly conversant with the story of the

renowned American blind and deaf mute, Helen Keller, and having been for many years a firm believer in the theory that the transmission of nervous energy or influence is not confined to the body in which it is generated, but that brain-waves or sympathetic influence may be transmitted to a separate individual with or without physical contact—in fact, it is my opinion that the remarkable achievements (shall I say reported achievements?) of Helen Keller are to a very great extent simply the reflex of the brain action of her companion, Miss Sullivan—I was desirous of experimenting on similar lines with my pupil, David McLean.

I therefore approached my directors, with the request that they would provide for David a bright intelligent boy, in possession of all his faculties, to be his constant companion in work and in play. My board of directors invited me to appear before them to state my case and explain my views and theories on the matter. This I did, with the result that that body of ladies and gentlemen became thoroughly and sympathetically interested in my project, and agreed to allow me to try the experiment for three months.

After interviewing several applicants for the post, I selected a smart young fellow, Robert Brunton, aged twelve, and in September, 1901, he entered on his duties. My *modus operandi* was as follows :

When David came to me for his morning lesson in articulation and lip-reading, Robert stood beside him, with strict injunctions to keep his mind firmly fixed on the work in hand. If I were teaching David a new sound, syllable, or word, then Robert had to think intently of that and nothing else, keeping one hand on David's head or shoulder all the time. And, while I used David's right hand on my larynx, his left was placed on Robert's lips, who was enunciating the same sound that I was trying to make David imitate. The effect of this double concentration of effort was, from the first, little short of magical. The essential sounds of

most of the letters of the alphabet were mastered in a few weeks. Short words of one syllable followed, then longer words of one syllable, and finally dissyllables. Words of two or more syllables were at first a puzzle to him, but by means of a simple device the difficulty was surmounted. One syllable was taught, and we made believe that it was placed in one of David's hands; the second syllable was treated likewise; then the two hands placed side by side. The idea seemed to strike him at once, and he pronounced the desired word. After that, by this simple means, more words were rapidly taught and learned, it being very noticeable, even to outsiders, that, when Robert was present to act as medium, David learned very much more quickly and intelligently than when alone.

Before losing his sight David had been for a few weeks at school, and fortunately remembered the forms of some letters of the alphabet—large roman. This was discovered by putting into his hands O, S, T, and some other of the easiest letters cut out of thick cardboard, in the hope that he might possibly recognise them, and I was more than delighted to find that he did. I then proceeded to give him the equivalent characters in Braille to feel, and at the same time taught him to pronounce the letter or its phonetic sound. This was a slow and tedious work, and it was many weeks before the idea began to dawn on his mind that there was any connection between the Braille character, the roman letter, and his articulation.

By and by the deaf and dumb manual alphabet was added. I can most conscientiously assert that I do not think I should ever have achieved success and surmounted these initial difficulties so perfectly without the aid of the auxiliary mental concentration provided, in this case, by the boy Robert.

Often half an hour would be spent to little or no purpose, David appearing restless and impatient the while as if groping in the dark after something; then suddenly he would brighten up, with an intelligent light beaming all

over his face, and he would take his lesson as fast as I could give it for ten minutes or a quarter of an hour, and as suddenly the light would go out, and no more could be done for that time. Surely convincing evidence of the truth and trustworthiness of the theory on which I was working.

David learned to write the letters of the Braille alphabet and to spell on his fingers simultaneously, and by the time he had had four months of my special course of instruction he was able to copy from a simple Braille book, and to read little words, enunciating them fairly, though imperfectly, every syllable having to be taught in the manner I have described.

When he was preparing a reading lesson, Robert sat beside him, with strict orders to keep his eyes on David's fingers and his mind concentrated on the word they rested upon ; and at these times it was nothing short of marvellous to notice that, although not physically touching each other, if Robert happened to turn his head or allow his attention to wander, David would at once turn on him with impatience and give him to understand that he was failing in his duty. It was just as if the little fellow were, so to speak, reading in a good light while he had the aid of Robert's concentration and sympathetic influence, and, when Robert ceased to attend, a cloud came over the sun.

When nine months had passed, and the summer holidays drew near, David was a very different child from the David of the previous year. He was bright and happy all day long, interested in everybody and everything, in school and out ; had learned and could pronounce the names of almost all the pupils and officials, and many of the directors of the institution, and was beginning to take information from others spelling on his hands. The learning of people's names was an interesting and apparently very amusing process to the little chap. Our lady superintendent's name is Miss Henderson, and the first stage in teaching this name was, of course, to get the syllable " Hen." This was somewhat easy, for, after a little time being spent, a stuffed

hen produced, and in addition, an egg, the eager brain put two and two together, and memory coming to his aid, and helped by articulation and spelling of the word, he pronounced the syllable "Hen." He then burst into a merry laugh, and, turning to the lady, called her "Mrs. Hen." The idea tickled him so that it was no use to attempt more that day, and for many days that was the name of the lady superintendent whenever he spoke of or to her, always with an amused smile on his face.

My name was, of course, out of all question at this stage, so I taught him to call me "Master," and thereafter for months I was "Mr. Master," and my wife "Mrs. Master." Now, however, he pronounces my name better than many people with all their faculties.

He is never more happy than in the gymnasium, which at first he called the "Trick-room," and gymnastics he termed "tricks." Now, however, he is proud to speak of the "*Jimmynasium*," the extra syllable, so common in the enunciation of the deaf, being very difficult to eradicate in his pronunciation of this word; and he is now quite a passable gymnast.

During the past session his progress has been phenomenal. He reads with ease and fairly correct pronunciation from a Second Standard Reading Book, writes a passable letter of good composition in Braille, works addition and subtraction sums, makes pretty little articles in bead and wire work, knits a stocking, sews a seam, and works the sewing-machine with ease and pleasure; last, but not least, he is making good headway with typewriting. He has this year carried off the good conduct prize for boys, and the second knitting prize.

At a sale of work held in the Freemasons' Hall last autumn it was a source of great interest to see little David sitting at a Singer's sewing-machine, stitching towels and sheets, and his work was in great demand.

David has a keen sense of humour, and is fond of playing little pranks on those whom he knows well. He is a uni-

versal favourite, and bids fair to become a most intelligent and useful member of society.

In conclusion, I would remark that it is commonly believed by the laity that blind people in general enjoy a peculiar compensation in the form of acute hearing, or in the possession of some other remarkable faculty to make up for their loss of sight. But this idea is as erroneous as the prevalent supposition that all blind people are gifted with a special taste for music, and that blind people never smoke.

Of course there is no doubt that blindness tends to a higher and more perfect development of the sense of hearing even in the uneducated, on the same principle that Nature almost always comes to the aid of her children in providing protective agencies of one kind or another even in the very lowest organisms; and, naturally, in the case of those who are blind, the sense of hearing is the first to fall back upon for this purpose. Thus it becomes more highly developed, simply because there is more frequent call upon and exercise of that sense.

But in the case of the highly trained and educated, or of the super-sensitive blind, there is another sense developed. This sense is an indefinable one—those even of the blind who possess it in the highest degree are unable to say in what it consists; the nearest approach to a definition which I have been able to obtain is, “an exceedingly subtle kind of instinct that enables a blind individual to detect the presence or proximity of a person or object under circumstances of absolute silence, and very often to know the nature of the object, as, for instance, a van, a lamp-post, or a wall; not only so, but to state very approximately the distance of such object from them.”

In my own mind I have not the smallest doubt that this is, shall we say, a sixth sense, which is possessed by us all in a latent and undeveloped form—undeveloped because one who can see has no need to make use of such a reserve force or power; and I am further of opinion that this remarkable power is of electrical origin.

Further, if those deprived of *one* sense, but still possessed of an active brain and intellect (the two terms are by no means synonymous), are able to draw upon the resources of nature to supply the deficiency—for protective purposes in the first instance, and later for their individual comfort and convenience—how much more those who are doubly deprived? Helen Keller in America, and David McLean in Scotland, are living proofs that such is the case; and, as I have already stated, to my personal knowledge the latter has frequently received impressions and information which can be accounted for in no other way than on the brain-wave theory, call it electropathy, telepathy, sympathetic influence, or what you will. I do not attempt to explain it. It is there, and cannot be gainsaid. The whole subject is as yet in its infancy, but, to use a common Scotch proverb, “Facts are chieils ’at winna ding,” and what I have personally witnessed with my own eyes in my attempts to develop the intellect of David McLean inspires me with renewed confidence that my method is the correct and scientific one.—W. HY. ILLINGWORTH.

MCNEILE, The REV. N. F., Vicar of Brafferton, Yorkshire.—Probably one of the best-known and most esteemed and beloved blind men of the day. His genial presence and humorous and pithy speeches always attract attention at our Conferences, and arouse interest in the great work of which he is such an ardent supporter.

METCALF, JOHN (“BLIND JACK OF KNARESBOROUGH”).—Was born at Knaresborough in 1716. He lost his sight through smallpox, when he was six years of age. At fifteen he was employed to dive for the bodies of two drowned men in the River Nidd, and succeeded in bringing one of them up. He also dived for and brought up two packs of yarn, which were sunk in 21 feet of water. He rode and won a race on his own horse, and, enlisting, in 1745, in Thornton’s troop, fought at Culloden and elsewhere. He afterwards acted as a guide for belated travellers,

and drove a stage-wagon between York and Knaresborough. After studying mensuration and engineering he became a projector and surveyor of roads and bridges. Amongst other works he built Boroughbridge, and made roads through Yorkshire, Lancashire, Derbyshire, and Cheshire. With the assistance of only a long staff he traversed the roads, ascended precipices, explored valleys, investigating their several extents, forms, and situations, so as to further his projects in the best manner. Most of the roads of the Peak of Derbyshire have been altered by his direction, particularly those in the vicinity of Buxton. This extraordinary man lived to the advanced age of eighty-five, possessed of his mental faculties to the last.*

PLATER, MR. J. J.—Is one of those men who have carved their way through life by a proper use of their natural gifts. He was born at Rugby in 1839, and came to the Midland metropolis on attaining his seventh year. When he was nine years of age he enjoyed the benefits of free education, in return for setting the copies in the copy-books at school, being an admirable caligraphist. At twelve he took a position as clerk in a business house. He remained here to the satisfaction of himself and his employers until he reached his twentieth year, when he passed through a serious illness which resulted in the total loss of sight.

Entering the Birmingham Institution for the Blind, with the intention of adopting music as a profession, he found that it would take too many of the best years of his life to qualify himself for the position either of organist or teacher of music; and so, under the circumstances, he adopted basket-making, feeling that in this branch of business at any rate he was free to an open market for the sale of his goods, and could give value for money, and perhaps find employment for others. After a few years he left the Blind Institution, with the best wishes of all with whom

* Abridged from Bull's "Sense Denied," pp. 103-7.

he had been brought into contact, to make another start in life. During the next few years he worked incessantly. His hours were, during the first year, from six in the morning till twelve midnight, with only very brief intervals for rest and food. In due course his industry was rewarded. As his goods became better known, the demand for them increased. It then became necessary for Mr. Plater to employ other hands. From that time his business has steadily prospered, until at the present moment it is one of the largest concerns of the kind throughout the kingdom.

Naturally he takes a deep interest in the blind, and has done much locally and otherwise, both by example and influence, for their advancement and well-being, taking a prominent part in all the various Conferences that have been held on their behalf. He was examined before the Royal Commission on the Education of the Blind, and was complimented upon the practical information he gave during the two hours he was under examination.

He takes a keen interest in local, social, and political life. He is one of the vice-presidents, and an active supporter of both the Sparkhill Institute and Sparkhill Ladies' Cricket Clubs, and during the season frequently attends the matches. He was one of the first members of the Sparkhill and Greet Institute, and was re-elected chairman of the trustees at the last annual meeting. In 1891 he was elected an overseer of the highways of the parish. He was chairman of the council of the South Birmingham Parliamentary Divisional Liberal Association for seven years, a member of the management committee of the Birmingham Liberal Association, and a member of the executive committee of the East Worcestershire Liberal Association.

In his business he makes it a practice to beat every previous year's record. Mr. Plater discharges his various and varied duties conscientiously and well; he manifests an active, not merely a passive, interest in the institutions with which he is connected, and it is scarcely to be marvelled at, therefore, that his services are in great demand. With all his

activity, Mr. Plater preserves a very evenly balanced temperament. He is genial to a fault, straightforward, generous, and candid, possesses plenty of tact, and can invariably give a Roland for an Oliver. In short, he possesses all the characteristics of an Englishman of the old school, and does his level best to make the world the better for his living in it.

RANGER, DR.—Alfred Washington Guest Ranger, M.A., D.C.L. Oxon., eldest son of the late Josiah Ranger, formerly of Ashdown Park, Sussex, was born at Brislington, Somersetshire, March 9, 1848. Educated at Bristol Grammar School, and having completely lost his sight at the age of fifteen, he entered the College for the Higher Education of the Blind, Worcester, and then graduated at Worcester College, Oxford. First Class Honours at Jurisprudence School, 1875, and again for the B.C.L., 1876; *proxime accessit*, Vinerian Law Scholarship, 1878; graduated B.A. 1876, M.A. and B.C.L. 1879, D.C.L. 1871; Solicitor, admitted 1879; senior partner of the firm of Ranger, Burton & Frost, Langbourn Chambers, 17, Fenchurch Street. Married, 1893, Alice Elizabeth, daughter of the late Jonathan Chambers, of Bendigo, Victoria. Dr. Ranger is, and has for many years been, an active member of the British and Foreign Blind Association.

ROBERTSON, SIR TINDAL.—At one time M.P. for Brighton and a member of the Gardner's Trust Committee. Founded the Brighton Blind Missionary Fund.

TAYLOR, HENRY MARTYN.—Was born at Bristol on June 6, 1842. In 1847 he began to attend the Grammar School of Queen Elizabeth at Wakefield in Yorkshire, of which school his father, the Rev. James Taylor, M.A. (afterwards D.D.), had just been appointed headmaster. In October, 1861, he entered at Trinity College, Cambridge, where, in January, 1865, he graduated as Third Wrangler, and shortly afterwards obtained the Second Smith's Prize.

During the next four years Mr. Taylor was Vice-Principal

of the Royal School of Naval Architecture and Marine Engineering at South Kensington, where he was employed in the winter months in teaching mathematics to the students. He spent the rest of the year in the study of law, and was called to the Bar by the Society of Lincoln's Inn in the autumn of 1869, but never practised. Recalled to his college in 1869, of which he had been elected a Fellow in October, 1866, he was placed on the teaching-staff of the college as Lecturer in Mathematics. He on many occasions examined in the annual examination of his college, as well as in those for Scholarships and Fellowships.

In the University Mr. Taylor has served on many "syndicates," has held the offices of pro-proctor and proctor, and has examined five times in the Mathematical Tripos examination.

Mr. Taylor's sight—although he had always been short-sighted, and also markedly colour-blind to green and red—was clear and keen until May, 1894, when it began to fail rapidly, and since the summer of that year he has been quite unable to see to read or write.

Mr. Taylor followed the advice he then received, not to give up any of his occupations unless compelled to do so. With the help of friends he completed his edition of Euclid, and since his blindness he has written several mathematical papers, one of which, "On a Method of Plotting out on a Chart the Great Circle Route between any Two Points," attracted some attention at the Liverpool meeting of the British Association in 1896.

In 1898 he was elected a Fellow of the Royal Society. Having for some years been a University representative on the Borough of Cambridge Council, he was elected one of the University Aldermen; and in the year 1900-1 he served the office of Mayor of Cambridge. In 1903 his name was placed permanently on the Commission of the Peace for the borough.

As a member of the British Braille Committee from 1902 to 1905, he did yeoman service in the revision of

Braille. In 1903 he joined the Executive Council of the British and Foreign Blind Association, of which he is still a member, and through his influence an important work on algebra has been published by that body in Braille.

In consequence of the dearth of embossed books of a scientific character, Mr. Taylor, in the autumn of 1907, started a fund called the Embossed Scientific Books Fund, with a view to the publication in Braille of books of a scientific character, at prices within the reach of the blind. He has already written out in Braille the first copy of four small works on the following subjects: "Sound and Music," "Astronomy," "Geology," and "Trigonometry," forming nine volumes in all.

TOWSE, CAPT., V.C.—Vice-Chairman of the British and Foreign Blind Association, and one of His Majesty's Gentlemen-at-Arms.—Lost his sight in the South African war by a bullet shot. His Victoria Cross bears two inscriptions for conspicuous bravery in the Boer war—first at Magersfontein, where he carried the body of Col. Downham from the fighting-line, and again for his famous charge with the Gordons, which cost him both eyes. Immediately on his return to this country he studied Braille, and interested himself in the education of the blind. He was a member of the British Braille Committee, and takes a very active part in the work of the Association.

VIVIAN, GLYNN.—Known as "The Blind Philanthropist." Has done much for the blind in the neighbourhood of Swansea.

BLIND AND DEAF MUTE ELEMENTARY EDUCATION ACTS

SCOTLAND, 1891.—The Act for the Compulsory Education of Blind and Deaf Children from five to sixteen years of age in Scotland was passed in 1890 and came into force in January, 1891.

Thus a distinct epoch was marked in the progress of the cause of the education of the blind—by far the most

important epoch in the history of that community. It carried with it, for the benefit of all blind schools certified by the Scotch Education Department, a capitation grant of £3 3s. per annum for each child satisfying the requirements of the Code in elementary subjects, and a further sum of £2 2s. per head for efficiency in manual work.

ENGLAND, 1893.—A similar Act came into force in England, in January, 1893, the Board of Education giving the same amount in capitation grants as the Scotch Education Department, on the same conditions being fulfilled.

IRELAND.—It is a matter for surprise and much regret that no provision of this kind is yet made in Ireland. Sad to relate, however, for many years after 1893, both in England and Scotland, school-boards, as they then were, remained in actual ignorance of their responsibilities under these Acts; whilst many others wilfully ignored or neglected to send the blind children in their respective areas to certified schools.

At the present day, even, one meets with cases of isolated education authorities who are absolutely unaware that the duty of attending to the education and maintenance, if necessary, of blind children devolves upon them.

TECHNICAL EDUCATION

EDUCATION ACT, 1902

It is important that all teachers of the blind should know that under the English Education Act, 1902, Part II. (Higher Education), local education authorities are empowered to continue the education of blind children above the age of sixteen, in respect of higher education,* in properly certified schools. They have also the powers to adopt cases over the age of sixteen who have had no previous training; so that blind persons unable to pay

* That is "education other than elementary," which, of course, includes all forms of technical training.

for their maintenance and instruction in trades suitable to their respective cases no longer need to pauperise themselves by appealing to the Guardians for the aid they require.

For this broad interpretation of the Act the blind of this country are indebted to Mr. Henry Stainsby, who, for a long period prior thereto, engaged in a clever and persistent correspondence with the Board of Education on the subject of facilities for blind young people of both sexes obtaining adequate technical training after they have passed school age.

A further step in this direction was attained a year or two later, when the Board of Education expressed their willingness to recognise certain institutions as technological schools, under condition that they complied with the requirements of the Department as set forth in the "Regulations for Day Technical Classes." A substantial capitation grant is paid on the satisfactory report of H.M. Inspector, and this greatly assists in providing efficient instruction.

The first institution to be so recognised was the Midland Institution for the Blind, Nottingham, and Mr. H. W. P. Pine, the worthy secretary and superintendent of that institution, deserves great credit for his pioneer work in this direction.

Henshaw's Blind Asylum followed suit in 1906, and now several other institutions are similarly *recognised*. All *learners* over sixteen years of age are eligible as grant-earners—that is to say, they may be entered as *pupils* in the technological department, under the Board of Education.

This is the right direction in which to look for *State Aid*; and there is little doubt that if those responsible for the proper conduct and equipment of the technical departments of the blind schools and institutions of this country realise their responsibilities, and make the most of the opportunities already afforded, the results achieved will stimulate the Board of Education to still further open their purse-strings, and increase the *facilities* at present granted by them.

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OF THE BLIND

25 & 26 Vict. (1862), cap. 43, sects. 1, 10.

30 & 31 Vict. (1867), cap. 106, sect. 21.

31 & 32 Vict. (1868), cap. 122, sect. 42.

42 & 43 Vict. (1879), cap. 54, sect. 10.

45 & 46 Vict. (1882), cap. 58, sect. 13.

THE EARLIEST INSTITUTIONS AND SCHOOLS FOR
THE BLIND IN THE KINGDOM

LIVERPOOL.—The first asylum and school of instruction for the blind in this country was established at Liverpool in 1790. It was set on foot by the Rev. Henry Dannel, the Rev. John Smyth, and others, the object set forth being, “to render the blind happy in themselves and useful to society.”

EDINBURGH, 1793.—Three years later the Edinburgh Blind Asylum was founded, by Dr. Johnstone, a minister of North Leith, aided by Mr. David Miller, a teacher in Edinburgh.

The chief object of the founders was to teach the blind a trade, so that they might, if possible, maintain themselves by their own industry.

At first the house was an asylum ; then there was added a school for young blind persons. As the institution grew, and more commodious premises were required, the location was moved from one part of the city to another several times. From these humble beginnings the present Royal Blind Asylum and School, with its magnificent educational establishment for juveniles, and asylum for women at West Craigmillar, and its extensive workshops and sale-room in Nicolson Street, has developed.

BRISTOL.—This was established in 1793, under the title of “Bristol Asylum or Industrial School for the Blind,” its object being, “not to employ the blind after being

educated, but teach them the means of getting a living by work."

SOUTHWARK SCHOOL FOR THE INDIGENT BLIND, ST. GEORGE'S-IN-THE-FIELDS, 1799.—Founded by Messrs. Ware, Bosanquet, Boddington, and Houlston. The object was to teach the pupils a trade, so that they might gain a subsistence wholly or in part.

A few years ago the establishment at St. George's-in-the-Fields was sold, and the pupils removed to their magnificent new institution at Leatherhead.

DUBLIN.—The Richmond National Institution for the Blind was founded in 1810, "to provide a Protestant home for blind male children and adults, and instruction in trades."

A complete list of all the institutions and charities for the blind in this country will be found in the little green book, "Information with regard to Institutions, etc., for the Blind," edited by Mr. Henry J. Wilson, Secretary of the Gardner Trust, 53, Victoria Street, Westminster, and obtainable from him, price 4*d.* post free. Every teacher of the blind should possess one of these little books, which contains also a wealth of information valuable to those engaged in blind work.

ROYAL NORMAL COLLEGE OF MUSIC FOR THE BLIND, UPPER NORWOOD, LONDON

Without wishing to be in the slightest degree invidious, it is desirable to make special mention of this world-renowned institution, which, under its remarkable blind Principal, Sir F. J. Campbell, and his clever wife, has attained so conspicuous a degree of success in itself, and done so much to stimulate the cause of the higher education of the blind all over the world.

The following account of the establishment of this wonderful institution is extracted from Dr. Campbell's Report on the College for 1890 :

"Twenty years ago to-day, January 20th, I arrived in

England, on my way from Germany to the United States, intending to sail from Liverpool on the 23rd. On the evening of my first day in London I visited a blind tea-meeting, at which hundreds of blind persons were present. A number of blind speakers took part in the meeting, and at first I was much impressed by the apparent happiness and contentment of these poor people. Little by little, however, the truth dawned upon me, as I moved about among the men and women, asking and answering questions. Before I left the room, the burden of the blind poor of this great metropolis rested heavily upon me. I was satisfied that many of those with whom I conversed might have been independent men and women if they could have had suitable advantages early in life. They frankly stated that, with few exceptions, they were all charity pensioners, and I was told that, out of 3,150 blind persons then in London, nearly 2,300 depended upon charitable relief.

“I arranged next morning to defer my sailing until a later steamer, and called upon the late Dr. Armitage, to whom I had a letter of introduction from the Rev. W. Davidson, of Berlin. After a short conversation, Dr. Armitage invited me to dine with him. During the evening he gave me a full account of his work in connection with the Indigent Blind Visiting Society and the British and Foreign Blind Association. In 1868, Dr. Armitage, being aware of the great improvements which had been made in the education of the blind in other countries, founded the British and Foreign Blind Association. Dr. Armitage also showed me a paper which he had read before the Society of Arts on the importance of pianoforte-tuning as an employment for the blind, and on the desirability of introducing into all schools for the blind in the United Kingdom the Braille musical notation, which had been used for many years in Paris, with marked success. He urged that piano-tuning, and other branches of the profession of music, promised better remuneration to the blind than any other occupation; but, to train them successfully in music, it was necessary to provide a better education than that hitherto obtainable in our institutions.

“After Dr. Armitage had given me an account of the efforts he was making on behalf of the blind, he wished me to tell him of my work in connection with Dr. S. G.

Howe, at the Perkins Institute for the Blind, Boston. When I went to Boston in 1858, I urged that the higher musical education of the blind should be made a principal feature in the institution, and that in the future the institution should take the initiative in obtaining employment for its pupils. I pointed out that the failure of the blind in the profession of music was due to the following reasons : (1) In the selection of pupils the musical ear rather than the mental capacity was considered. (2) The physical and intellectual powers of the musical students were not developed. (3) The musical instruction was insufficient both in quantity and quality. (4) The opportunity of hearing music in its highest forms was not afforded them. As an experiment a test was made with a class of twenty pupils. The candidates were first examined in literature, history, mathematics, etc., and if they did not show at least average mental capacity their musical qualifications were not tested. The twenty were selected, the training given, and nineteen out of the twenty became not only self-sustaining, but men and women of great activity and usefulness.

“ Dr. Armitage read with much interest the scheme which I had drawn up for establishing a musical conservatoire for the blind, in connection with one of the leading American Universities. He urged me to make London the field rather than America. We arranged to visit the existing schools and institutions, with the hope of inducing them to adopt new methods of training.

“ With him I visited all the schools, workshops, classes, and religious meetings for the blind—to-day in Pimlico, to-morrow in the New Cut, the day after at the East End. We spent many hours in these classes ; all wished to consult him. He patiently heard, then kindly advised and comforted ; he ministered alike to body and soul—work, food, clothing, medicines, and heavenly truths were all in his never-failing store. Sometimes he chided for idleness or neglect of duty, but his chiding never became scolding ; it was earnest, thoughtful, and prayerful ; it rarely ever failed in its purpose. After hours of what would have been weary work for any one whose heart was not filled to overflowing with love for those whom he was serving, he would stand by the door and give all the poor people a kind parting word. He possessed the rare and wonderful

gift of making the humblest and most ignorant feel that it was his special pleasure to talk with them. His happy manner and pleasant words were like sunshine, and cheered even the most forlorn.

“It was during those first weeks and months that I learned to appreciate and love his noble character, beautiful life, and self-sacrificing spirit. Like the Master, he went about doing good.

“After various meetings and consultations, some of the most active friends of the blind—the late Mr. Hornsby Wright, Mr. Edward Lawrence, Mr. B. F. Ward, and others—considered it would be inexpedient to try such a plan in one of the old institutions; they strongly advised that an independent experiment should be made, and it was resolved to make the effort. At one time the discouragements were so great, the movement was practically given up. On a certain Saturday afternoon Dr. Armitage and I had, as we supposed, our last walk in the Park. I returned to Richmond, and on Sunday spent several hours in a quiet nook in Kew Gardens. The long meditation did not show even a faint path, and early Monday morning packing was commenced. During breakfast the morning letters were brought, and the first opened was from William Mather, Esq., M.P. for Gorton. It was to this effect: ‘Since your visit to Manchester I have thought much of what you said about the higher education and training of the blind. I wish to do my share, and enclose a cheque for the purpose. If more help is needed write to me.’ Mr. Mather’s letter gave a new inspiration. I immediately returned to London, and the result is well known.

“Leeds, Liverpool, Manchester, Glasgow, and Edinburgh were visited; Dr. Armitage, Professor Fawcett, Mr. Lawrence, Mr. Miner, and Mr. Tebb wrote letters to the *Times* and other papers. On August 16th, at the rooms of the Charity Organisation Society, Mount Street, by the special exertion of Mr. C. A. Miner, a provisional committee was formed, and on November 14th, the £3,000 having been raised, of which Dr. Armitage gave £1,000, an executive committee was appointed.

“The Royal Normal College, and the practical results of its work, testify to the untiring zeal, earnest devotion, and liberal policy of this committee and its successors.

“ A governing body was constituted, of which His Grace the Duke of Westminster became president, and the late Lord Shaftesbury, the late Lord Lichfield, the late Right Hon. W. H. Smith, M.P., and the late Geo. Moore, Esq., trustees.

“ Her Majesty the Queen graciously consented to become patron ; H.R.H. the Prince of Wales, K.G., H.R.H. the Princess of Wales, H.R.H. Alfred Duke of Saxe-Coburg and Gotha (Duke of Edinburgh), K.G., H.R.I.H. the Duchess of Saxe-Coburg and Gotha (Duchess of Edinburgh), H.R.H. the Princess Louise (Marchioness of Lorne), H.R.H. the Duke of Connaught, K.G., and H.R.H. the Princess Frederica, vice-patrons.

“ Scholarship committees were formed in Liverpool, Manchester, Leeds, Glasgow, Edinburgh, and Bristol. On March 1st, 1872, the school was opened near the Crystal Palace.

“ On June 21st, 1873, our beautiful freehold property of six acres was purchased. Dr. Armitage contributed liberally towards our library, gave the large organ in the music-hall, built and equipped the boys' gymnasium, erected our swimming-bath, and always took the lead when money was required. Being practically blind, he thoroughly understood my difficulties, and consequently my special plans of working. It is mainly due to him that I have had the opportunity of organising and perfecting our plans and methods for educating and training the blind. Without Dr. Armitage, the Royal Normal College would never have been founded.

“ The influence of the College is not limited to the young men and women who have been educated and established in business. During recent years, representatives have been sent from other countries to examine our work, and leading institutions, both at home and abroad, are adopting our methods, introducing well-arranged gymnasiums, rinks, swimming-baths, cycles, and shops for elementary technical training.

“ I cannot close this sketch without an expression of grateful appreciation to the Committee of the Gardner Trust, by whose liberal aid the College was able to establish the primary and technical schools.

“ Through the Gardner Scholarships, many of the very

poorest blind boys and girls are receiving a practical education and training, which is lifting them out of the charity class and placing them in positions of independence and usefulness."

GARDNER'S TRUST FOR THE BLIND

"*Committee* : The Right Hon. Lord Kinnaird ; Mr. A. P. S. Beaumont ; Mr. W. S. Seton-Karr ; The Right Hon. Lord Belhaven and Stenton ; Mr. P. Lyttelton Gell ; Mr. Douglas C. Richmond, C.B. ; Mr. W. F. Lawrence. *Secretary* : Mr. Henry J. Wilson. *Office* : 53, Victoria Street, Westminster, London, S.W.

"The ' Gardner Trust for the Blind ' is the Trust created by the will of the late Mr. Henry Gardner, of 1, Westbourne Terrace, Hyde Park, who, at his death on January 9, 1879, left the sum of £300,000, free of legacy duty, for the benefit of blind persons residing in England or Wales.

"In order that the Fund should be employed in the best possible way, and in accordance with the wishes of the testator, the matter was referred to the Court of Chancery, where a scheme for the administration of the Fund, dated January 20, 1882, was drawn up and approved.* In pursuance of an application from the committee, the Board of Charity Commissioners for England and Wales issued an order on February 23, 1894, varying the scheme of the Trust, which has the effect of constituting four general headings for the distribution of the income of the Fund, after payment of the necessary expenses of management, viz. :

"1. Two-ninths shall be applied in instructing the blind in the profession of music.

"2. Two-ninths shall be applied in instructing the blind in suitable trades, handicrafts, and professions other than the profession of music.

"3. Two other of such nine equal parts shall be applied

* The committee appointed by the testator consisted of his daughter, Mrs. Richardson Gardner ; the then Bishop of London (Dr. Jackson) ; Lord Kinnaird (the late) ; the Hon. A. F. Kinnaird (the present Lord) ; and Mr. A. P. S. Beaumont. By the deed of trust, the committee must never exceed seven in number. The late Lord Kinnaird was appointed chairman, and filled that office till his death in 1887, when he was succeeded by the present chairman, Mr. W. S. Seton-Karr. Mr. Henry J. Wilson was elected on February 21, 1882, to the position of secretary, which he still holds.

in providing pensions for the poor and deserving blind who may be incapable of earning their livelihood.

“ 4. The remaining three of such nine equal parts shall be applied in such manner as the committee think best for the benefit of the blind.

“ The committee, who meet, as a rule, on the first Tuesday in each month, and oftener when necessary, have absolute discretion in managing and carrying into effect the scheme of the charity, in strict accordance with these provisions.

“ *All* applications should be made to the secretary, either personally or by letter, at the office, and not to members of the committee.

“ A report of the Trust is published annually, and a copy can be obtained on application to the secretary.

“ In administering the Fund, the committee desire as far as possible—

“ (a) To make grants from this Fund the means of eliciting the contributions or assistance of other persons and societies.

“ (b) To give to the persons aided such assistance as will call out their own exertions, and put them in the way of maintaining themselves ; but this is not meant to apply to the cases of persons who are considered fit subjects for pensions.

“ (c) To avoid such application of the Fund as will merely do that which would otherwise be done by the parochial rates.

“ No person is disqualified from receiving assistance by reason of his religious opinions ; but no person can receive assistance unless the committee are first satisfied that he is of good moral character and in real need of help from the Fund.

“ The following information will be useful to persons seeking assistance from the Trust :

“ 1. INSTRUCTION in trades, handicrafts, and professions, including music.

“ (a) Scholarships of different values from £20 to £60 a year are founded at the Universities, at various institutions, and, as vacancies occur from time to time, blind persons between the ages of sixteen and twenty-seven, who are desirous of becoming candidates, should make application to the secretary of the Trust, in order that their names may be registered. No person is permitted

to compete for any scholarship unless the committee are first satisfied that he has such health and strength of body and mind as will enable him to pursue his studies to advantage.

“The scholarship does not cover, as a rule, the entire cost of the pupil’s expenses at the institution. In the first instance, the scholar is sent for three months on trial, and the committee reserve to themselves the power of declaring the scholarship vacant, if the result be unsatisfactory to them; if, however, the result be satisfactory, the scholar holds his scholarship for a year from the time that he entered the institution, and then is re-elected from year to year, provided that the committee, at the expiration of each year, are satisfied, by such evidence as they may require, that the scholar has shown capacity, and applied himself diligently to his studies, and has otherwise conducted himself in a satisfactory manner, and is in need of further instruction. The decision of the committee as to the re-election of a scholar or otherwise is final and conclusive.

“(b) Assistance by way of contribution is given to institutions undertaking the instruction of the blind, and also to individual blind persons above the age of sixteen years who are unable to meet the whole expense of such instruction.

“2. PENSIONS.—Grants by way of pension are made without restriction as to age.

“Persons in receipt of parochial relief are, by one of the regulations drawn up by the committee for their general guidance, ineligible. No assistance is given to street musicians, and the intermarriage of blind persons is much deprecated. In the ‘Report of the Royal Commission on the Blind, the Deaf and Dumb, etc.,’ it is recommended that the intermarriage of the blind should be strongly discouraged. Every applicant should, in the first instance, send his name in full, age, and address, to the secretary, and state the average amount of his weekly income and from what sources it is derived. A letter from the clergyman of the parish in which the applicant lives, or from the minister of the chapel which he attends, should also be sent to the secretary, giving full particulars, and certifying from personal knowledge that the applicant is of good character, thoroughly deserving, and in real need of assistance from the Trust.

"The pensions, which are of the amounts £10, £15, and £20 a year, are terminable by the committee on six months' notice, and are withdrawn without notice if the pensioner prove undeserving or no longer in need.

"As only a portion of the income of the Trust can be applied in granting pensions, and as the applicants have been very numerous, and vacancies occur but seldom in the list of pensioners, very many persons, however deserving, must perforce be disappointed.

"3. GRANTS by way of free gifts are made in the following and other cases :

"(a) To institutions for the purchase of furniture and apparatus required for the instruction of additional pupils beyond those already there, or otherwise in special cases.

"(b) For the manufacture of books in blind type, and grants of such books.

"(c) To assist local efforts for the establishment or fitting up of schools, at which technical training may be given to the blind in trades or handicrafts.

"(d) To enable persons who have received instruction in a trade, handicraft, or profession to begin the practice thereof and make a start in life, by providing them with tools, materials, etc., and also

"(e) To those persons who require help to continue their trade, handicraft, or profession, and are unable to procure it from friends or other sources.

"Grants under headings (d) and (e) are made with no intention that they will be repeated, but with the hope of *permanently* establishing the recipients in some trade, handicraft, or profession.

"*Note.*—Throughout this précis words importing males include females."

The above is reprinted, by kind permission of Mr. H. J. Wilson, from his little green book referred to on p. 125.

Another well-known and useful paper emanating from the offices of the Gardner Trust, and edited by the secretary, is *The Blind*, a quarterly magazine on blind events and matters of interest, which should be in the hands of all interested in the work ; price 1s. 2d. per annum, post free.

BRITISH AND FOREIGN BLIND ASSOCIATION *

“Incorporated 1902. For Promoting the Education and Employment of the Blind. 206, Great Portland Street, London, W. Mr. Henry Stainsby, *Secretary-General*, to whom all communications should be addressed.

“This Association was founded in 1868, by the late Thomas Rhodes Armitage, M.D., and to it the blind of this country are indebted for the introduction of the Braille system of reading and writing which is now universally taught.

“The chief objects of the Association are : To discover the best methods of educating and employing the blind ; to persuade people to adopt these methods ; to produce writing-frames, books, maps, and other educational apparatus for sale to schools or individuals at the lowest possible price, and to collect and diffuse information, and to advise on all subjects relating to the blind. All books printed by the Association are printed from stereotyped plates embossed by blind copyists. Several reading-books, grammars, lesson-books, Greek and Latin classics, French works, standard works of history, poetry, etc., and musical publications have been stereotyped and are kept ready for sale. About fifteen thousand separate works, varying in length from one to twelve volumes, have been copied by hand to meet the requirements of public libraries and individuals. About six hundred ladies, who give their services gratuitously, make the first Braille copies of these books, and their copies are re-copied by blind scribes, chiefly women and girls, who are paid for their work, and of whom over two hundred are employed. Nine blind persons are regularly employed in stereotyping books and music. The Association publishes several magazines (see p. 136).

“The volunteer writers have formed themselves into an Auxiliary Union, the members of which render assistance to blind people in all parts of the country by obtaining employment and custom for them, and supplying them with instruction and useful information.”

The Secretary-General of this Association is Mr. Henry Stainsby, a gentleman recognised as a pioneer in all matters connected with the Education and Employment

* Copied, by kind permission, from Mr. H. J. Wilson's little green book.

of the Blind. Prior to receiving his present appointment he was for many years Secretary and General Superintendent of the Birmingham Institution, which, thanks to his zeal, enthusiasm, and skill, has come to be recognised as a model to be copied by all who would conduct their Blind Schools and workshops on up-to-date and successful lines.

MOON'S SOCIETY

“For Embossing and Circulating the Holy Scriptures and other useful books, etc., in Dr. Moon's Type for the Blind. Miss Moon, *Hon. Treasurer and Hon. Secretary*, 104, Queen's Road, Brighton.

“This Society was instituted in June, 1847, by the late Dr. Moon, to whom the blind are deeply indebted for the well-known type bearing his name. The property, together with the buildings, the machinery for stereotyping, embossing, etc., is held by trustees for the benefit of the blind in perpetuity.

“This type has already been adapted to over four hundred languages and dialects.

“In addition to the Bible, and many separate chapters and psalms, the publications now comprise 600 volumes in English and 310 foreign books. More than 72,000 electrotyped and stereotyped plates have been prepared, and are preserved for future use of the Society, and are daily being added to.”

LIBRARIES FOR THE BLIND

“Nearly all the institutions and societies for the blind, and also many public libraries for the sighted, have books printed in types used by the blind. The Public Library at Oxford has many volumes of classical and standard works for the use of University students. The following special circulating libraries in London may be mentioned separately :

“1. HOME TEACHING SOCIETY FOR THE BLIND, 53, Victoria Street, Westminster, S.W. For those in superior circumstances. Annual subscription of not less than 10s. Moon and Braille types.

“2. THE INCORPORATED NATIONAL LENDING LIBRARY

FOR THE BLIND, 125, Queen's Road, Bayswater, W.; secretary, Miss E. W. Austin. Founded 1882 by Miss C. Howden and Miss M. Arnold. Incorporated 1898. This library has upwards of 8,500 volumes in Braille and Moon types. Books are forwarded to all parts of the kingdom, carriage being paid by the reader. Assistance is given from the 'Arnold Carriage Fund' where the inability of the reader to meet this expense is proved. The annual subscription of members is £2 2s., but special terms are made with institutions when a large number of volumes is required. Lower rates are allowed on application, adapted to the means of the reader, the minimum being 5s., on statement of circumstances, with letter of reference in confirmation. About 500 books are added to the Library in the course of the year by the kindness of nearly 100 voluntary writers. In order to increase the supply of books for the Library, and to assist in providing work for the blind, 'The Dow Blind Writers' Fund' has been started for the employment of blind writers and copyists.

" 3. THE INDIGENT BLIND VISITING SOCIETY established three free libraries in 1884, at 8, Red Lion Square, W.C., Lecture Hall, Harley Street, Bow, E., and Lecture Hall, Surrey Chapel, Blackfriars Road, S.E. Braille type.

4. "LENDING LIBRARY, belonging to the Society for the Propagation of the Gospel. Books about missionary work of the Church, written almost entirely in Braille (interlined). There is no subscription, but borrowers have to pay the postage of the books to and from the Library. Address, The Librarian, S.P.G. House, 19, Delahay Street, Westminster, S.W." *

MAGAZINES FOR THE BLIND †

"Several magazines are now published in Braille type, and two in Moon's. The particulars of those brought under notice are as follow :

Progress, started January, 1881. Revised Braille type (interpointed). Published monthly at 206, Great Portland Street, London, W. Price 6s. a year, post free.

* Most large towns provide embossed books for the Blind in connection with their Free Libraries.

† Copied, by kind permission, from Mr. H. J. Wilson's little green Book.

“ *Dawn*, started September, 1886. Moon’s type, with extra contractions, etc. Published quarterly by the Northern Counties Blind Society, at 4 and 5, Howard Street, North Shields. Price 3s. 4d. a year, post free.

“ *Santa Lucia*, started March, 1889. Revised Braille type (interlined). Published on the 7th of each month by the Misses Hodgkin, Zenda, Balcombe, Sussex. Price 19s. a year, post free.

“ *The Weekly Summary*, started June, 1892. This is a newspaper in Revised Braille type, giving current news, with special regard to all matters concerning the blind. Published every Wednesday by the Misses E. R. Scott and L. T. Bloxam, Eltham, Kent. Price 2d., or 8s. 8d. per annum, post free. Specimen copy free.

“ *Hora Jucunda*, started January, 1893. Revised Braille type (interpointed). Published every month at the Royal Blind Asylum and School, West Craigmillar, Edinburgh. Price 12s. a year, post free.

“ *Recreation (for Adults)*, started January, 1895. Revised Braille type (interpointed). Published on the 15th of each month at 206, Great Portland Street, London, W. Price 10s. a year, post free.

“ *Gospel Light in Heathen Darkness*, started January, 1895. A magazine containing missionary information. Revised Braille type. Published quarterly by Mrs. C. E. Lamb, Vincent House, Kettering. Price 2s. 4d. a year, post free.

“ *The King’s Messengers (for Children)*, started January, 1895. A magazine containing missionary information. Revised Braille type. Published monthly by Mrs. C. E. Lamb, Vincent House, Kettering. Price 5s. a year, post free.

“ *The Craigmillar Harp*, started January, 1895. Braille type. Published quarterly at the Royal Blind Asylum and School, West Craigmillar, Edinburgh. Price 3s. a year, post free. A magazine specially for the musical blind. A printed price list, with details of all the pieces published up to date, is supplied free on application to the editor.

“ *The Church Messenger*, started February, 1896. Revised Braille type. Published monthly. *Hon. Sec.*, Miss M. C. Langton, 2, Percy Villas, Campden Hill, Kensington, W. Price 10s. per annum, post free.

“ *Channels of Blessing*, started January, 1898. Braille type. Published monthly. Editors—Miss. I. M. Brook-

field, of Hove, Sussex, and Mr. Edwin Norris (to whom all communications should be addressed), 21, St. Peter's Road, St. Leonards-on-Sea. Price 4½*d.* each copy, post free.

“*Morning*, started January, 1902. An Australian Braille magazine of 60 pages. Published monthly at the Royal Institution for the Blind, Adelaide, South Australia. Price 12*s.*, post free, yearly.

“*The Hampstead*, started November, 1902. Revised Braille type. Published on the 15th of each month. Embossed and published by The London Society for Teaching the Blind, 10, Upper Avenue Road, Hampstead, London, N.W. Price 1*s.* each copy, by post, 1*s.* 3*d.*

“*Quarterly Intercession Paper*, started October, 1903. This is a quarterly paper of information and intercession on behalf of the Church's missionary work. Revised Braille (interpointed). Price 3*s.* per annum, post free. Issued on 1st of January, April, July, and October, and supplied by Miss D. Blyth, 11, Dryburgh Road, Putney, S.W.

“*The Mission Field*, started September, 1904. This is a magazine about Foreign Missions, published on the 1st of each month. Revised Braille (interpointed). Price 2*d.* a copy, or 2*s.* per annum, post free. Published by the Society for the Propagation of the Gospel, 19, Delahay Street, Westminster, S.W.

“*The Braille News Packet*, started December, 1904. Hand-written in Revised Braille type (interlined). Published fortnightly on alternate Mondays, and circulated amongst members of a club. It contains articles on politics, literature, science, etc. Particulars can be obtained from Miss Z. Ethel Grimwood, 7, Fourth Avenue, Hove, Sussex.

“*Excelsior*, started March, 1905. A monthly magazine, hand-written in Braille, for circulation amongst the readers in Forfarshire and Kincardineshire. Published the 1st of each month in connection with the Mission to the Blind, St. Helen's, Forfar.

“*The 'Moon' Monthly Magazine*, started January, 1906. Printed at 104, Queen's Road, Brighton. Moon's type. Price 19*s.* a year, post free.

“*Golden Sunbeams (extracts)*. A magazine for children. Revised Braille Grade II., with a few pages of Grade I.

for the little ones (interlined). Price 3s. a year or by post 4s. Published at 206, Great Portland Street, London, W.

"*The Daily Mail* in Braille type was first published on Saturday, December 1, 1906, and is issued weekly every Saturday. Price 1d. per copy, and 6s. 6d. per annum post free.

"*The Blind*, started January, 1898. Ordinary type. Published by Mr. Henry J. Wilson, Secretary of Gardner's Trust for the Blind, 53, Victoria Street, Westminster, S.W., on the 20th of January, April, July, and October of each year. Price 1s. 2d. a year, post free, for the four numbers. Special articles on questions concerning the blind, and the latest information in regard to institutions, societies, and current affairs.

"*The Braille Review*, started January 1, 1903. Ordinary type. The review gives a monthly list of Braille publications, etc. Price 1s. a year, post free. Published by the British and Foreign Blind Association, 206, Great Portland Street, London, W."

LITERATURE ON THE BLIND

- *1773. "An Essay on Blindness." Diderot, Paris.
- *1774. "The Education of the Blind." *The Edinburgh Magazine and Review*.
- *1786. "An Essay on the Education of the Blind." Haüy, Paris.
- *1801. "The Employment of the Blind." The School at Liverpool. Lettsom.
- *1819. "The Instruction and Amusements of the Blind." Guillié, Paris.
- *1833. "The Education of the Blind." *The North American Review*. Boston, U.S.A.
- *1837. "The Education of the Blind." James Gall, Edinburgh.
- *1837. "Observations on the Employment, Education, and Habits of the Blind." Anderson, York.
- 1838. "Biography of the Blind." Wilson.

* These have been reprinted by Messrs. Sampson Low, Marston & Co., Ltd., 100, Southwark Street, London, S.E.

- *1838. "The Establishments for the Blind in England."
Carton, Bruges.
- *1842. "The Education, Employments, etc., at the
Asylum for the Blind." Alston, Glasgow.
- 1845. "Blindness." Kitto. G. Cox, 18, King Street,
Covent Garden, London.
- 1851. "The Great Exhibition of all Nations." Jurors'
report on Writing and Reading Apparatus, and
Books for the Blind.
- 1859. "The Sense Denied and Lost." Bull. Longman,
Green, Longman & Co., London.
- *1859. "The Blind." From *The English Cyclopædia*.
Baker.
- *1860. "The Blind." From *The National Review*.
- *1861. Knie's (of Breslau) "Management and Education
of Blind Children." Taylor, York.
- 1865. "Exile and Home. The advantages of Social
Education for the Blind." Landeghem. Clowes
& Sons.
- 1867. "Blind People, their Works and Ways." Johns.
John Murray, Albemarle Street, London.
- 1868. "The Story of a Blind Inventor." (Dr. Gale.)
Plummer.
- 1871. "A Guide to the Institutions, Charities, etc., for
the Blind." Turner & Harris. Also in the
year 1884. Simpkin, Marshall & Co., 4, Stationers'
Hall Court, London.
- 1872. "Blindness and the Blind." Hanks-Levy. Chap-
man & Hall, 193, Piccadilly, W.
- 1875. "The Education of Blind Children in Ordinary
Schools." Barnhill, Glasgow. Chas. Glass & Co.,
85, Maxwell Street, Glasgow.
- 1875. "Consequences and Amelioration of Blindness."
Moon. Longmans & Co., Paternoster Row,
London.

* These have been reprinted by Messrs. Sampson Low, Marston & Co.,
Ltd., 100, Southwark Street, London, S.E.

1876. "Training of the Blind." The Charity Organisation Society's Report (London). Longman, Green & Co., London.
1876. "The Instruction of Blind Children." School Board for London Conference. Spottiswoode & Co., New Street Square, London.
1876. "Arithmetic for the Blind." W. H. Taylor, Stockton.
1877. "Light for the Blind." Moon's System of Reading. Moon. Longmans & Co.
1880. "Gardner Bequest for the Blind." (Charity Organisation Society, London.)
1883. "The Yorkshire School for the Blind." Jubilee and Conference. York Herald Newspaper Co., York.
1886. "The Education and Employment of the Blind." Armitage. B.F.B.A.
1887. "Elizabeth Gilbert and her Work for the Blind." Martin. Macmillan.
1889. "The Evidence given before the Royal Commission, and Report" (2 vols.).
1890. "The Conference at the Royal Normal College, Norwood."
1891. "Light on Dark Paths." A Hand-book for Teachers and Parents of Blind Children. Mel-drum, Aberdeen.
1892. "The True Structural Basis of Punctographic Systems of Literature and Music." W. B. Wait, New York.
1893. "Roman Letter (for the Blind)." Frank Rainey, M.D., Austin, Texas, U.S.A.
1893. Sizeranne's (of Paris) "The Blind as seen through Blind Eyes." Lewis, New York.
1898. "Wm. Moon, LL.D., and his Work for the Blind." Hodder & Stoughton.

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MODERN WORKS ON THE BLIND, THAT MAY BE
READ WITH BENEFIT

“Report of the Conference on Matters relating to the Blind, held at the Church House, Westminster, April, 1902.”

Notably papers on the following subjects :

1. “Higher Education of the Blind.” Rev. H. J. R. Marston, M.A.

2. “Provision for Defective Blind Children.” Rev. T. W. Sharpe.

3. “Physical Training of the Blind.” Dr. F. J. Campbell.

4. “Uniform Braille System.” Mr. W. Hy. Illingworth.

5. “Statistics Concerning Blindness.” Mr. Reginald McLeod, C.B.

6. “Home Teaching Societies.” Miss E. M. Bainbrigge.

7. “Prevention of Blindness.” Mr. R. Brudenell Carter, F.R.C.S.

“Report of the International Conference on the Blind, Edinburgh, 1905” :

1. “Education of the Blind under the Elementary Education (Blind and Deaf Mute) Act, 1893.” Mr. Henry Stainsby.

2. “Higher Education of the Blind.” Mr. W. Hy. Illingworth.

3. “The Problem of the Defective Blind.” Mr. Henry J. Wilson.

“Report of the Second Triennial International Conference on the Blind, Manchester, 1908” :

1. “Technical Training and Industrial Employment of the Blind in the United States.” Mr. S. M. Green, Missouri.

2. “Commercial Training of the Blind.” Dr. Fraser.

3. “Recreations for the Blind.” Mr. W. Littlewood.

4. “Psychology of Blindness.” Mr. J. M. Ritchie.

5. “Music for the Blind.” Mr. H. E. Platt.

6. “Scientific Books in Braille.” Mr. H. M. Taylor.

These books may be borrowed from almost any institution for the blind, or from the B.F.B.A.

OBSTACLES TO PROGRESS

It is fairly safe to say that the two chief causes of the phenomenally slow progress in the development of the education of the blind during the first century after Valentine Haüy's pioneer work were (1) the mistaken idea that the best methods of such education were necessarily those which leave the greatest resemblance to the means employed in the education of the seeing, and which appealed to the sense of sight to such an extent as to make them easy of acquirement by sighted persons; and (2) the individual jealousies and prejudices of inventors of types and mechanical appliances, which jealousies and prejudices appear to have been fostered most zealously by the respective institutions or coteries to which these inventors belonged.

Anything approaching a conference of those working in the cause of the blind, with a view to the adoption of the best that united wisdom and skill could produce, does not appear to have been thought of.

These facts are sufficiently evident, even to the casual student of the history of the education of the blind, as to render it unnecessary to do more than simply state them; yet some evidence in support of the above statement will prove at least interesting.

First, as to the tendency of committees and teachers to use as the media of instruction those systems which most nearly resembled such as were in vogue for the education of the sighted, and which commended themselves to the sense of sight.

VALENTIN HAÜY, 1786.—“After having successively employed characters of different sizes, according as we found the sense of touch more or less delicate and susceptible, it appeared to us, at least during the first periods of our progress, desirable to confine ourselves to that type which has been used in printing the greatest part of this work.”

SCHOOL BOARD OF LONDON CONFERENCE ON INSTRUCTION OF BLIND CHILDREN, 1876.—*Mr. S. S. Forster*, Principal of the Worcester College for the Blind Sons of Gentlemen, said he would confine himself to facts with regard to the use of the roman type. It had obviously this advantage, that *it could be read by ordinary school teachers*, which was a point before them.

Mr. William Harris, of Leicester, stated that he was perfectly disinterested as far as all institutions and charities were concerned. He looked upon himself as a juryman on the question of the education of the blind, having had evidence placed before him, and read every book on the subject. . . . If they had books in the roman type the blind children would also be able to teach their brothers and sisters who could see. . . . Moon's type had also its advantages—it was similar to the roman in having no abbreviations. . . . Special teachers were required to teach Moon's type, which was a point in question; but to teach the roman this was unnecessary.

Mr. H. J. R. Marston, undergraduate of Durham University, stated that he considered roman type the best. To get the literature of the blind into the settled characters of the country would be an emancipation for the blind. It was appalling, the needless exclusion of blind children from the occupation and pursuits of the sighted; and this matter of blind literature was amongst the causes.

Dr. Armitage and Dr. (then Mr.) Campbell, of Norwood, also gave evidence chiefly in favour of Braille, though Dr. Campbell preferred Moon for reading. Mr. Shadwell was strong in support of Braille, and Dr. Moon, of course, stood by his own type.

The decision of the School Board, as given in their Report, July 21, 1876, was, in brief, as follows:

1. That one uniform system for reading-books for the blind is much to be desired.

2. That the system in use for the blind should be, with possibly very slight modifications, the same as that in

use for the seeing—viz. the roman, because it is the accepted character of the country; and especially because, with books in this character, ordinary school teachers could everywhere teach a blind child, and ordinary persons could everywhere help a blind child.

GALL, 1834.—One of Gall's chief arguments as to the superiority of his type over contemporary systems was its resemblance to roman, and the ease with which it could be read by the seeing.

1872.—The American Association of Instruction of the Blind passed a series of resolutions in favour of the adoption, as far as practicable, of seeing methods.

Most marvellous of all, however, considering the late date at which the following deliverance was made, and the prominent position in blind work occupied by the gentlemen whose words we are about to quote, is the report of *Mr. Edmund C. Johnson*, member of the committee of the School for the Indigent Blind, Southwark, and the *Rev. B. G. Johns*, chaplain, on the Blind Congress at Paris, 1878, concluding thus: "We are of opinion, however, that the entire adoption of any arbitrary system, such as Braille's, would tend to increase that very isolation of the blind which it is sought to lessen, and to cut them off more and more from the rest of the world. We are convinced that they should, as far as possible, read, write, and gather information in the same characters as those used by the sighted. . . . The Braille system is a mystery to all but the initiated. . . . We hold, therefore, to the roman letter as the primary foundation for work in general."

Finally, so lately as 1884, a superintendent of one of the best schools for the blind in the kingdom, when pressed to introduce the Braille system, exclaimed: "What! that barbarous and heathen system of reading? Never! It has not the smallest resemblance to ordinary print! How are our teachers to learn it?"

Alas! there is little doubt that the unwillingness of sighted teachers to take the trouble to learn Braille was

in a great measure responsible for its tardy adoption in this country.

The fact that so many such teachers, even now, persist in using a sighted book when giving a reading-lesson in school, whilst the pupils use Braille books, tends to manifest the unwillingness of the teacher to master, in all its details and bearings, the system which is the very *lux in tenebris* of the blind.

UNIONS OF INSTITUTIONS, SOCIETIES, AND AGENCIES FOR THE BLIND

One of the most marvellous features of the present-day rapid developments in connection with work for the blind is to be found in the formation of these unions, of which there are now seven, which together cover the whole of England and Wales :

1. The North of England Union, including Yorkshire, Lancashire, Northumberland, Durham, Cumberland, and Westmorland.

2. The Metropolitan and Adjacent Counties Union, including Essex, Hertford, London, Middlesex, Berks, Hants, Sussex, Kent, and Surrey.

3. The Midland Union, comprising Bucks, Derby, Hereford, Leicester, Northampton, Nottingham, Oxford, Stafford, Warwick, and Worcester.

4. The North-West Union, comprising Cheshire, Shropshire, and North Wales.

5. The Eastern Union, comprising Bedford, Cambridge, Huntingdon, Lincoln, Norfolk, Rutland, and Suffolk.

6. The Western Counties Union, comprising Cornwall, Devon, Dorset, Gloucester, Somerset, and Wilts.

7. The South Wales and Monmouthshire Union, comprising Monmouth and South Wales.

The Northern was the pioneer union, and it originated

at a small meeting called by Miss I. M. Heywood, in Manchester, early in 1906. Representatives were invited from the principal institutions and societies in the six northern counties. At this meeting the projected union was discussed, and a plan of organisation decided upon. In a few months an organising secretary, to devote her whole time and attention to the work, was appointed in the person of Miss Edith Wright, of Wakefield, and to her and the indefatigable chairman, Mr. Fred J. Mannby, of York, the union is chiefly indebted for its conspicuous success.

Two years later the rest of England wakened up to the realisation of the value of the new work being done in the north; and before the year 1908 closed, the seven unions already mentioned had come into being.

The crowning point was reached when, at a meeting in London of the executives of these seven unions, called by Mr. H. J. Wilson, it was decided to form a central union of unions, whose chief function should be to secure uniformity of principles of administration of the several unions, and interchange of opinion on all matters concerning the blind.

Thus, by the natural forces of evolution, we may say, has been brought about "The Central Bureau and National Register," on which Mr. Tate, at the 1902 conference, and Mr. Norwood, in 1905, read papers, but which neither of these conferences considered feasible or desirable.

The value of this movement can hardly be over-estimated, and the interest thus aroused amongst all classes of the community augurs well for the future in so far as concerns the amelioration of the condition of the blind. It is for the younger generation of workers in this great cause to see to it that they carry forward the banner of hope with all the enthusiasm which it deserves.

We append a copy of the constitution of the Northern Union; all the others are on similar lines.

CONSTITUTION OF THE NORTHERN UNION

“ 1. The Union shall be called ‘The North of England Union of Institutions, Societies, and Agencies for the Blind.’

“ 2. The area of the operations of the Union shall be the six northern counties.

“ 3. The objects of the Union are to promote such intercourse among existing agencies and individuals interested in the welfare of the outdoor blind as may lead to the organisation, unification, and extension of work on their behalf, and to the formation of societies in districts where there are none existing—to the end that no blind person in the northern counties may be left uncared for.

“ 4. Any person engaged or interested in the promotion of the welfare of the blind giving a donation of £5, or subscribing not less than £1 1s. a year, will be qualified as a *Member* of the Union.

“ 5. Any person engaged or interested in the promotion of the welfare of the blind, and subscribing less than £1 1s., will be qualified as an *Associate* of the Union, and as such may attend any general meeting without the power of voting.

“ 6. The officers of the Union shall consist of a president, vice-presidents, and a general committee, with chairman, honorary treasurer, and honorary secretary. The general committee shall consist of one or two representatives of each society belonging to the Union subscribing not less than £1 1s. to its funds, such representatives being appointed annually by their respective societies. The general committee may co-opt not more than five Members.

“ 7. The general committee shall, from time to time, make rules for the government of the business of the Union.

“ 8. There shall be an annual conference of the Union in the month of May—at different towns—convened by the honorary secretary of the general committee, the local arrangements for the conference being in charge of the secretary of the society in the place where the conference is held.

“ 9. The financial year commences on January 1, on which day annual subscriptions become due.

THE COLLEGE OF TEACHERS OF THE BLIND

“ Nisi Dominus Frustra ”

(OFFICIALLY RECOGNISED BY THE BOARD OF EDUCATION)

The latest development in the interests of the education of the blind was the foundation of this college.

The first meeting was called on July 5, 1907, by the Council of the British and Foreign Blind Association, and was held at their offices in Great Portland Street, London, W. The meeting was very representative and was largely attended. Mr. Henry J. Wilson, Secretary of the Gardner Trust for the Blind, was unanimously elected chairman. Dr. Eichholz was present, and explained to the meeting the very useful purpose that the College would serve in the education of the blind by raising the standard of teachers engaged in this special work. A draft of the proposed rules, regulations, and syllabus was submitted, amended, and generally approved. The following important resolution was adopted by the meeting :

“ That all present co-operate, and that an association be, and is hereby formed, embracing the United Kingdom, and entitled ‘ The College of Teachers of the Blind,’ the object of which shall be to conduct examinations of teachers of the blind in accordance with the rules and regulations which shall be now and subsequently drafted.”

Subsequent meetings were held at the office of the Gardner Trust for the Blind, 53, Victoria Street, Westminster, S.W., at which important and necessary business was transacted.

The original draft of the constitution of the College was prepared by Mr. W. E. Taylor, honorary treasurer of the Catholic Blind Asylum, Liverpool, and the design for the certificate of efficiency issued to the successful teachers was prepared by Miss Stainsby.

The following is an extract from the constitution or foundation deed of the College :

“ 1. The name of the College shall be ‘The College of Teachers of the Blind.’

“ 2. The offices of the College shall be situate at the offices of the British and Foreign Blind Association (Incorporated 1902), 206, Great Portland Street, London, W., or at such other place in the county of London as the committee of the College may from time to time select.

“ 3. The objects for which the College is established are :

“ (a) To promote and encourage the training of teachers of the blind.

“ (b) To raise the status of teachers of the blind by forming them into a college with a recognised position as specialists in the work of education.

“ (c) To give teachers of the blind the opportunity of submitting their qualifications to the scrutiny and judgment of an accredited body for the purpose of examination, so that upon proof of fitness they may receive certificates of competency, and with that object to hold all necessary examinations, and to grant such certificates and diplomas as can lawfully be granted.

“ (d) To raise the tone and character of the instruction of the blind generally.

“ (e) To diffuse by means of a library, lectures, and otherwise, information on all matters connected with the education and the moral, mental, physical, and social condition of the blind, and to encourage interchange of thought and opinion thereon.

“ (f) To receive and apply donations and subscriptions from persons desirous of promoting the objects of the College, or any of them.

“ (g) To grant Fellowships to those who have done distinguished service in the education of the blind, provided that their experience extends over a continuous period of not less than ten years.

“ (h) To promote the efficiency of teachers of the blind, and the cause of the education of the blind generally, and to do all such lawful things as are incidental or conducive to the attainment of any of the foregoing objects. Provided, nevertheless, that the College shall not grant, nor profess

to grant, titles other than the title of Fellow, Member, or Officer of the College, and that all certificates of fitness granted by the College shall express on the face of them that they are granted by the College on the report of examiners or an examiner, by whom the examination was made on behalf of the College, or on a certificate or other evidence which the committee of the College has considered sufficient; and shall specify the subjects in which the examiners or the committee have been satisfied and those in which 'honours' have been obtained.

" 4. The College shall be governed by a council and a committee, and shall have an honorary treasurer, honorary solicitor, honorary auditors, and an honorary registrar, and such other honorary or paid officials as the council shall from time to time elect.

" 5. The members of the College shall consist of :

" (a) Members of the council of the College.

" (b) Fellows of the College.

" (c) Holders of a certificate of the College.

" 6. All persons who by their public position or by their support, financial or otherwise, may or may be deemed to be likely to assist the objects of the College, shall be eligible to be elected as members of the council."

Mr. Henry J. Wilson is chairman of the committee, Mr. Henry Stainsby registrar, and the Hon. Arthur Kinnaird treasurer. The first board of examiners were the Rev. St. Clare Hill (chairman), Miss Laura Douglas-Hamilton, the Rev. Thos. Barnard, Mr. H. M. Taylor, F.R.S., Mr. A. Pearson, Mr. Henry Stainsby, and Mr. W. H. Illingworth (secretary).

The first examination was held at Henshaw's Blind Asylum, Manchester, in July, 1908, when twenty-seven candidates presented themselves.

Already the London County Council and most of the institutions and schools for the blind in the kingdom have decided that all their teaching staff, who have not already done so, must qualify for the College diploma within a given time.

The following letter from the Board of Education, con-

veying official recognition, marks an important epoch in the history of the College.

“BOARD OF EDUCATION,

“WHITEHALL, S.W.,

“26th *October*, 1909.

“SIR,—

“With reference to your letter of the 26th February last, I am directed to inform you that since the committee are prepared to fulfil the conditions laid down in the official letter of the 1st February last, the Board will recognise examinations conducted by the College in accordance with those conditions for the purposes of Articles 16 (*a*) (iii.), 16 (*d*) (ii.), and 16 (*e*) of the Regulations applicable to schools for blind, deaf, defective and epileptic children.

“I am, sir,

“Your obedient servant,

“R. G. MAYOR.

“HENRY STAINSBY, ESQ.,

“C/O BRITISH AND FOREIGN BLIND ASSOCIATION,

“206, GREAT PORTLAND STREET, W.”

CONFERENCES ON THE BLIND

Of many conferences that have been held in recent years in the interests of the care, education, and employment of the blind the most important were :

1. That held at the Wilberforce Memorial School for the Blind, York, 1883.
2. That held at the Royal Normal College, Norwood, in 1890.
3. Conference on Matters relating to the Blind, convoked by the Gardner Trust, at the Church House, Westminster, 1902. It was then decided to hold such conferences triennially, and to invite foreign delegates.
4. First Triennial International Conference on the Blind, and exhibition of their work, in Edinburgh, 1905.

5. The Second Triennial International Conference on the Blind, with competitive exhibition of their work and award of prizes, held in Manchester, 1908.

At the conclusion of the Gardner Trust Conference above referred to in 1902, a committee of organisation was appointed, to make all the necessary arrangements for the first "International Triennial." The chairman of this committee was Mr. Henry J. Wilson, and the secretary Mr. H. W. P. Pine, superintendent and secretary of the Nottingham Institution, and Mr. George Stott, manager of the Royal Blind Asylum, Edinburgh, acted as local secretary.

Mr. Wilson was again elected chairman of the Manchester Conference (1908) Committee, and Mr. W. H. Illingworth, superintendent of Henshaw's Blind Asylum, as secretary, the local secretary being Mr. W. B. Phillips, of Manchester. For the first time in the history of the blind a competitive exhibition of their work in every department was held, and over £60 awarded in prizes.

MR. HENRY J. WILSON, F.C.T.B.

SECRETARY OF THE GARDNER TRUST FOR THE BLIND *

It had not been our intention to make personal reference in this little work to any *seeing* official worker on behalf of the blind, as there are so many ladies and gentlemen filling offices of responsibility and trust in our institutions and societies with praiseworthy efficiency, that to single out a few for special mention would be, to say the least, invidious.

Mr. Henry J. Wilson, however, standing as he does—figuratively speaking—head and shoulders above all his *confrères* in the work, has become so involved in every movement, of whatsoever sort or kind, that has for its

* Chairman of (1) Triennial International Conference Committee; (2) College of Teachers of the Blind; (3) Metropolitan Union; (4) National Committee for the Employment of the Blind; (5) Prevention of Blindness Committee; (6) Pensions Committee; (7) Union of Unions of Agencies for the Blind.

object the welfare of the blind, that, apart from his being the secretary of the largest trust for the blind in the kingdom, his position is unique, and no less so in the esteem, and we may say affection, of all who know him.

For this reason, therefore, any up-to-date history of the education of the blind would be sadly incomplete without a sketch of his life and work—the most trusted friend and counsellor of the blind and their friends.

Henry Josiah Wilson was born in Wales on March 1, 1844, and is the third son of the late Edward Wilson, of Hean Castle, Pembrokeshire, the second son being the late Major-General Sir Charles W. Wilson, K.C.B., F.R.S., etc., whose life has recently been published by Mr. John Murray.

In 1855 he went to Cheltenham College and remained there until 1863, being in the first-class classical department, and a prefect, when he left. His holidays were spent on his father's estate, chiefly in shooting and fishing.

In 1866 he had a very severe attack of scarlet fever with complications, and, being recommended to spend some winters out of England, he went in 1867 to the Argentine Republic in South America. There he engaged in cattle and sheep farming, and at first led an exceedingly rough life, as he settled close to the Indian frontier, where Indian raids were of frequent occurrence. He entered into his new and strange life with much energy, and soon adapted himself to it. He became very fond of lassoing, and throwing the "bolas," and thought there was nothing more exciting than having at the end of his lasso, buttoned on to his saddle, a wild bull plunging about and bellowing, and often suddenly charging him on his horse. It was in 1871, when lassoing some horses, that the lasso snapped, and recoiled with great force into his face, especially damaging the right eye. He had to travel, while suffering greatly, over the prairie for more than 200 miles, before the eye could be attended to, and, though the inflammation was cured after some weeks, the sight was lost in that eye.

In 1873 he came home for a year, returning in 1874 until 1880, when he returned to England for good. Whilst he was in South America he took several long excursions, on one occasion going as far north as Salta, on another as far west as Mendoza, nestling in the Andes, where he stayed for a week in the new town, which is built alongside of the old one that was completely destroyed by an earthquake in 1863, and was then lying just as it fell.

On another occasion he rode on one horse, leading another for use when the one he rode was tired, as far south as Bahia Blanca, crossing a large uninhabited tract, where he saw nothing but ostriches, deer, etc. Ten days after he took this ride the whole district was raided by Indians. He sympathised much with the Indians, especially in the way they were driven off the land and maltreated, and he was eye-witness to several acts of cruelty which took place in the practical extermination of this fine tribe of Indians.

In 1882 he married Edith Nairne, daughter of the late Rev. John Du Pré Addison, vicar of Weymouth for many years. As he was desirous of remaining in England he answered an advertisement for the post of secretary of Gardner's Trust for the Blind, which had just been created by a legacy of £300,000 from the late Mr. Henry Gardner. There were 373 applicants, including many clergymen, retired officers, and others, and he was selected as one of five to interview the committee on February 18, 1882. He was appointed secretary on February 21, and took up the work on February 24. As he was the first to hold the post, he had not only to attend to an accumulation of 1,500 letters from applicants for assistance from the Trust, but he also had to organise the work under the deed of trust, which had been drawn up in the Court of Chancery.

During the twenty-seven years that he has acted as secretary, he has visited nearly all the institutions for the blind in England, Scotland, and Wales, and also many on the Continent. He attended the conference at York in

1883, and also the conference at Amsterdam in 1885. On the latter occasion he went with Dr. Armitage and M. Maurice de la Sizeranne to Utrecht, where, at their request, he guided these two blind men up 458 steps to the top of the detached tower of the Cathedral, and described to them the wonderful panoramic view which lay before them. In 1889 he went with Dr. Armitage, whom he constantly saw and whose friendship he valued most highly, to the conference in Paris. In 1890 he acted as honorary secretary to the conference held at the Royal Normal College, and in 1902 he organised and carried out all the arrangements for the conference held in London on the initiative, and under the ægis, of the Gardner Trust.

He was appointed chairman of the committee for organising the conference held at Edinburgh in 1905, when he read a paper on "The Problem of the 'Defective' Blind, and its Best Solution," and was also elected chairman of the committee to organise the conference held at Manchester in 1908, when he gave the inaugural address, and opened the debate on "Pensions for the Blind." He has again been elected chairman of the committee for organising the conference to be held at Exeter in 1911.

In 1887 he brought out the first edition of the pamphlet "Information with regard to Institutions, Societies, and Classes for the Blind in England and Wales." There have been four editions of the pamphlet, and 10,000 copies printed.

In January, 1898, he published the first number of *The Blind*, a paper which appears quarterly and gives current information, and special articles on questions connected with the blind.

He has frequently spoken at the annual meetings of various institutions and societies for the blind, and readily advocates their cause when he has the time and the opportunity to do so. Being the secretary of the largest trust for the blind, he knows, and is known by, most of the workers for the blind, and is the keeper of many secrets confided

to him, and of many opinions from different points of view. He has very frequent interviews with callers, and a large correspondence on different questions connected with the blind, more especially in regard to difficulties in dealing with individual cases.

At a meeting of the General Council of the College of Teachers of the Blind, held in London on October 23, 1909, Mr. Wilson was elected a Fellow of the College. Only five fellowships were conferred, the other four gentlemen so honoured being Sir Francis J. Campbell, Rev. St. Clare Hill, Mr. W. Hy. Illingworth, and Mr. Henry Stainsby.

SHOULD THE TRAINING AND EDUCATION OF BLIND CHILDREN BE ENTRUSTED TO BLIND TEACHERS ? IF SO, TO WHAT EXTENT ? *

“INTRODUCTION.—Having had charge of one of the most important and successful schools for the blind in Great Britain for a period of fifteen years, I have no hesitation in answering the above question in the affirmative ; and will strive, in the short space of time allowed to me for this paper, to bring forward such arguments, founded on direct observation, as shall tend to justify the position which I have taken up.

“QUALIFICATION OF A BLIND TEACHER.—Of course it is a *sine qua non* that the blind teacher to be employed shall be one who—

“(a) Has had the advantage of a sound education ;

“(b) Is possessed of the power of self-control in a high degree ;

“(c) Is enthusiastic and determined to succeed ;

“(d) Is kind and sympathetic, and at the same time firm ;

“(e) Is true to his word.

* A paper read at the International Congress, Paris, July, 1900, by Mr. W. H. Illingworth, then Headmaster of the Royal Blind Asylum and School, West Craigmillar, Edinburgh.

“ Given these qualifications, a blind teacher for ordinary class work, and for much out-of-school duty also, is, if anything, preferable to one who can see. The question of supervision, correction of bad habits, etc., I will deal with later on.

“ TO BE SUCCESSFUL A TEACHER SHOULD BE ABLE TO BRING HIMSELF TO THE LEVEL OF HIS PUPIL.—It is almost, if not quite, as impossible for a seeing person to realise what it is to be blind, and for him to enter into and sympathise with the difficulties of his blind pupil, as it is for a congenitally blind person to enter into, and share with one who can see, the beauty of a glorious picture or landscape.

“ *In Seeing Schools.*—Those who have charge of large educational establishments—I mean ordinary schools for seeing pupils—know to their cost what difficulty is experienced in procuring teachers who have the power, or the will, or both, to bring themselves down to the child’s level—that is, to be able to become for a time a child again, so as to see the difficulties of the lesson, or the meaning of an apparently stupid answer to a question, from a child’s point of view. A difficulty explained away in child’s language, a lesson illustrated in childish fashion, appeals at once and directly to the child’s mind, and the impression remains on the young brain ; whilst an abstruse explanation, or a classical illustration, which may be given in the same connection by one who is a scholar, but not a teacher, though perfectly logical and mathematically correct, and lucid enough too, from his point of view, creates only an impression—if any at all—of wonderment in the young mind, at the long words and unintelligible phrases used.

“ *Difficulty Increased in the Case of the Blind.*—This difficulty is increased tenfold when pupils are removed further still from the level of the teacher by the barrier of blindness. A skilful seeing teacher may in the course of a few weeks master the peculiar methods used in teaching the blind, and be able to give a certain amount of daily instruction to a class of blind children ; but it takes him years before he becomes what might be called a ‘naturalised blind person,’ and is able to see things from what I designate the blind point of view ; whilst he is never in that favourable position enjoyed by the blind teacher—

especially a teacher blind from childhood—of being able to say to the child despairing over a difficult sum or piece of music: ‘See, do it so! I can do it. I am blind like you. If I have learned, so can you.’ How often even the best seeing teachers are met with the rejoinder from one or other of their blind pupils: ‘Ah, yes! it’s easy for you. You can see.’ If for no other reason, then, it is well to employ blind teachers, because their very presence in such positions in school is a continual incentive and encouragement to the pupils.

“TEACHING BRAILLE READING.—I have found by experience that a blind teacher is able more readily to explain to his pupils how to recognise and distinguish between the various Braille characters than a seeing one—that is to say, other things being equal, children under a blind teacher will more rapidly become fluent readers of Braille than those taught exclusively by a seeing teacher.

“The reason of this is not far to seek. Although most seeing teachers of the blind are able to read Braille, they do so with their eyes, and I have seldom met one who could read it with his fingers; though I do not say that some may not be able to recognise a number of the characters, or perhaps all of them, very slowly by touch. But the blind teacher, having himself overcome all the technical difficulties—some of which it is almost impossible to explain in so many words—is able to help the little one by sympathetic hints and guidance, and even by anticipating, as a seeing teacher can very rarely do, the many little stumbling-blocks which present themselves to the young Braille scholar.

“ARITHMETIC.—The same argument holds good in the teaching of arithmetic, and to an equal extent—at any rate, where the blind teacher has access, as is the case in our school, to up-to-date class-books, test-cards, etc., on the subject, and is ready to take advantage of opportunities which occur for consulting seeing persons who are conversant with the newest methods; and here I may remark that, if there is one error more than another into which a blind teacher is liable to fall, it is the fault of over-conservativeness in methods of teaching, and a general reluctance to accept what is new.

“In mental arithmetic a good blind teacher will invent

a variety of short cuts for arriving at a satisfactory result which would never occur to a seeing person ; and I have no hesitation in saying that a class of children taught by a blind teacher will easily outstrip, in this subject, a similar class taught by a teacher with sight.

“ WRITING BRAILLE.—In the teaching of Braille writing there is perhaps not quite so much to be said in favour of the blind teacher, but still, as a rule, the results are quite satisfactory.

“ MUSIC.—In this subject again, the blind teacher excels. The old argument comes to the front. A seeing teacher cannot, and does not, play from Braille music, and very, very few have a thorough knowledge of the system. They cannot realise what it means to be able to see only one line of music at a time, and to have to depend entirely on the imagination for the formation of a chord, the top or bottom note only of which is written in Braille, and on the memory for the playing of a piece at the learning stage. For, even though the blind pupil or teacher may have his music at hand, still, if he wishes to refer to it, he must stop playing, look up the place—oft-times no easy matter—and then resume playing from memory. Thus a blind pupil under a seeing master is much more readily disheartened than if his teacher were blind like himself. Much has been said against the ability of a blind music-teacher to give efficient instruction in technique, and to ensure correct fingering ; but there is little doubt that after the correct fingering of scales, arpeggios, and finger exercises has been taught (and this a blind teacher can do quite well by placing his hands upon those of his pupils), the smoothness and accuracy with which a passage is rendered will tell an intelligent and competent blind music-teacher whether the notes are correctly fingered, at least in the great majority of cases.

“ There is no doubt that it is an advantage for a blind pupil to have his progress in music examined by a skilful seeing master, and to have a finishing course of lessons also from him ; but the greater part of the work can be quite efficiently performed by a blind teacher. We have no better proof of this fact than the very extraordinary amount of success achieved by the talented Principal of the Royal Normal College for the Blind, Upper Norwood,

London, as a teacher of music, both before and since he attained his present position.

“**EAR DEVELOPMENT.**—This is a subject which should receive far more attention in our schools than it does. I mean the training of the children to recognise by means of hearing what other people observe by sight—direction of sound, obstruction on the path, locality, etc.; and I suppose no one will deny that these will be best taught by a blind teacher. It is the development of an instinct which none but the blind can really appreciate and understand, and, if carefully cultivated in children, will save the pupil from many a hard knock and fall later in life.

“**CONCENTRATION.**—The blind teacher, as a rule, gives more of his leisure time to thinking over and preparing lessons for school than could reasonably be expected of his seeing colleague. Having such limited scope for physical and mental recreation, and so much less to occupy the attention out of school hours than his sighted fellow teacher, the blind man’s mind reverts to what took place during the lessons, and occupies itself in comparing and contrasting the individualities and outstanding characteristics of his pupils. The pupils are quick to recognise a sympathetic nature, and, without doubt, are more readily influenced either for good or ill by a blind person than one who can see. There is a sort of innate suspiciousness with which the blind, young and old, regard those who can see, until they have proved them to be absolutely trustworthy; and this peculiarity is very marked in blind children. That is the reason why I always so strongly urge that it is more essential, if possible, that the teacher of blind children—whether he is blind or sighted—should be ‘true to his word’ than is the case in a seeing school. If he promises a reward, no matter how small, let him see to it that he fulfils his promise. If he promises a punishment, let him not avoid the infliction of it.

“I have now said sufficient, I think, to justify the employment of blind teachers in our schools. Let us go on to consider to what extent they can be so employed successfully and beneficially to all concerned.

“**REQUIREMENTS OF VARIED CURRICULUM NECESSITATE SEEING TEACHERS.**—In the present day, when so much more is taught to, and expected of, blind children than

used to be the case, it is only natural to expect that we find in the school curriculum some subjects the teaching of which requires the aid of the seeing. Typewriting, kindergarten, sewing, gymnastics, swimming, etc., form examples of what I mean. These and similar subjects should be taught by a seeing teacher, or at any rate under the supervision of an intelligent seeing person.

“ECCENTRIC HABITS AND GESTURES.—Again, as is well known, most blind children are guilty of bad habits, eccentric movements of hands or face, or body, or all three, and some have stooping or injurious tendencies, all of which require to be looked out for and checked continually. If persistently corrected, an intelligent blind child will quickly acquire sufficient self-control to banish these eccentricities of gesture and injurious habits; whilst, if left alone, he will grow up an object of pity—however clever he may be—to all with whom he comes in contact. I know of two or three most excellent, highly educated blind gentlemen, who, for lack of correction when young, are the victims of imbecile movements and gestures which seriously detract from the pleasure and influence which their otherwise splendid personality would exert upon those who esteem them best and love them most.

“SUCCESS IN AFTER LIFE.—The blind boy or girl who hopes to become an intelligent member of society, and to move with grace and ease among his fellows when he goes out into the world, requires a good deal of instruction which a blind teacher cannot, in the nature of things, impart to him, but which he can readily acquire from a seeing teacher.

“CONCLUSION.—To conclude in a word, I might say that the education of blind children in those subjects in which the methods of instruction are, necessarily and essentially, totally different from those in vogue for the seeing is *best* in the hands of a properly qualified blind teacher. The religious and moral training is also as safe in his hands as it would otherwise be; but neatness in personal appearance (if anything, more essential to success in the blind than the seeing), development of physique, typewriting, many technical employments, and such like—in fact, those subjects in acquiring which the blind must pursue the same or similar methods as the seeing—are best in the

hands of a seeing teacher, or at any rate taught under the supervision of a qualified seeing superintendent.

“PROPORTION OF BLIND TEACHERS.—In Britain many of the blind schools have now adopted the class-room system, one class being separated from another by a glazed partition, so that the principal can exercise a direct supervision over the whole. By this system, also, two blind teachers and three seeing make an excellent staff for five classes, the seeing teacher being able to call his blind colleague's attention to any misconduct or eccentric movement on the part of any member of his class. Such an arrangement has proved very successful in many British schools.”

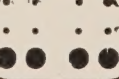
OLD STYLE BRAILLE ALPHABET, WITH CONTRACTIONS.

The large dots represent the raised points of the Braille letter ; the small simply refer to indicate their position in the group of six.

[illegible]

The signs of the 2nd, 3rd, and 4th lines are formed from those of the 1st by the addition of lower dots.

The signs of the 5th line are the same as those of the first, except that they are written in the middle and lower holes.

	,	'	:	.	?	!	(	'	
	be	con	dis	en	to		his	in	was
	Only as a separate syllable commencing a word.				Only when a separate word.			When used as a prefix it stands for by.	
3th line.									
	st	ing	prefix for numbers	end of line in poetry	hyphen. apostrophe (When used as a prefix sem.)				
	When at the end of a word, ble.				dash				
5th line.									

The signs of the 1st line when preceded by the prefix for numbers stand for the nine numbers and the cipher.

REVISED BRAILLE ALPHABET, WITH CONTRACTIONS.

1st LINE	{	A 	B but 	C can 	D do 	E every 	F from 	G go 	H have 	I 	J just 
-------------	---	---	--	--	---	--	---	---	--	---	---

2nd LINE	{	K know- ledge 	L like 	M more 	N not 	O 	P people 	Q quite 	R rather 	S so 	T that 
-------------	---	---	---	---	--	---	---	--	--	---	---

3rd LINE	{	U us 	V very 	X it 	Y you 	Z as 	and 	for 	of 	the 	with 
-------------	---	---	---	---	--	---	---	---	---	---	--

4th LINE	{	ch child 	gh 	sh shall 	th this 	wh which 	ed 	er 	ou out 	ow 	W will 
-------------	---	---	--	---	--	---	--	--	--	--	---

5th LINE	{	' ea 	; be bb 	: con cc 	. dis dd 	en enough 	! to ff 	() were gg 	" ? his 	in 	* 	" was by 
-------------	---	---	---	--	--	--	---	---	---	--	---	---

6th LINE	{	Fraction-line Sign still st 	ing 	Numeral Sign ble 	Poetry Sign ar 	Apostrophe and Abbreviation Sign 	Hyphen com 	Dash 
-------------	---	---	---	---	---	--	--	--

7th LINE	{	Accent Sign 	Capital or Decimal-point Sign 	Letter Sign 	Italic Sign 
-------------	---	---	---	---	---

Used in forming Contractions :      

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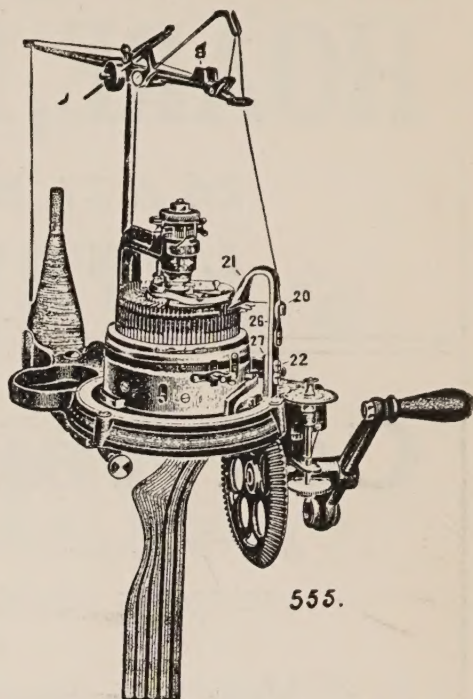
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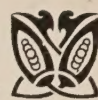
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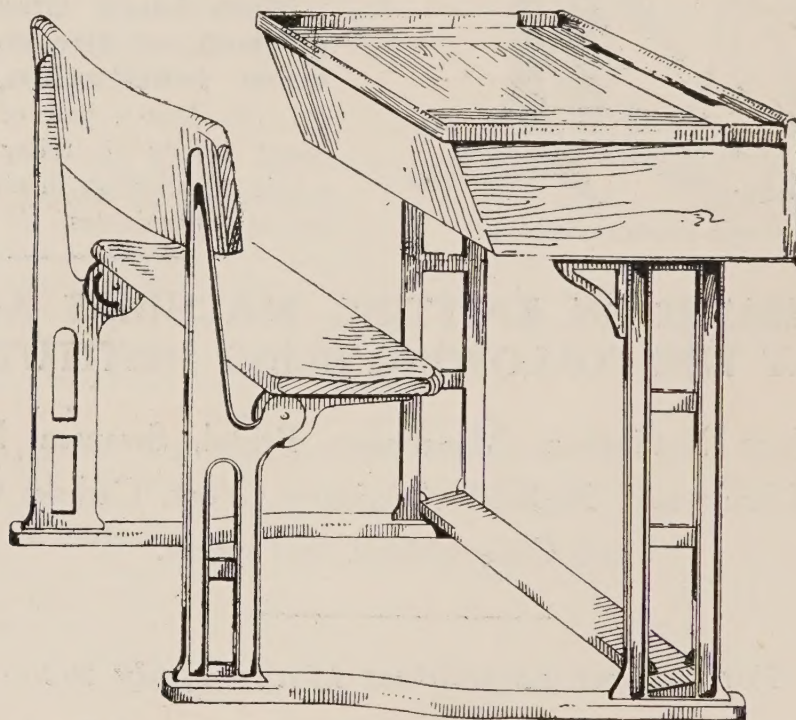
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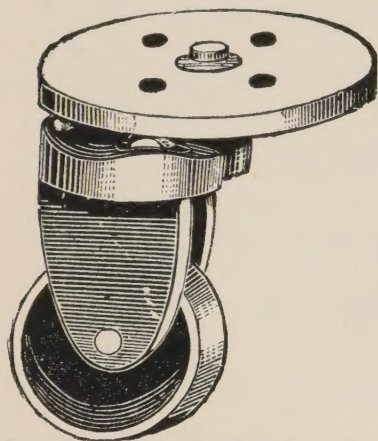
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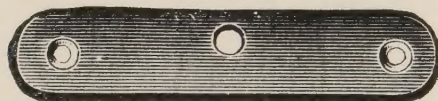
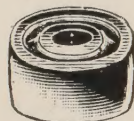
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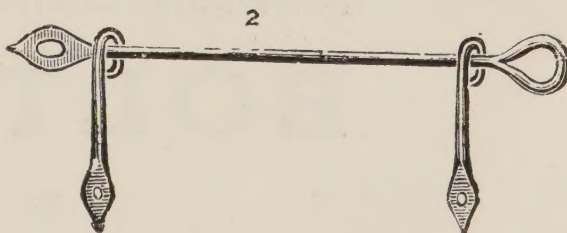
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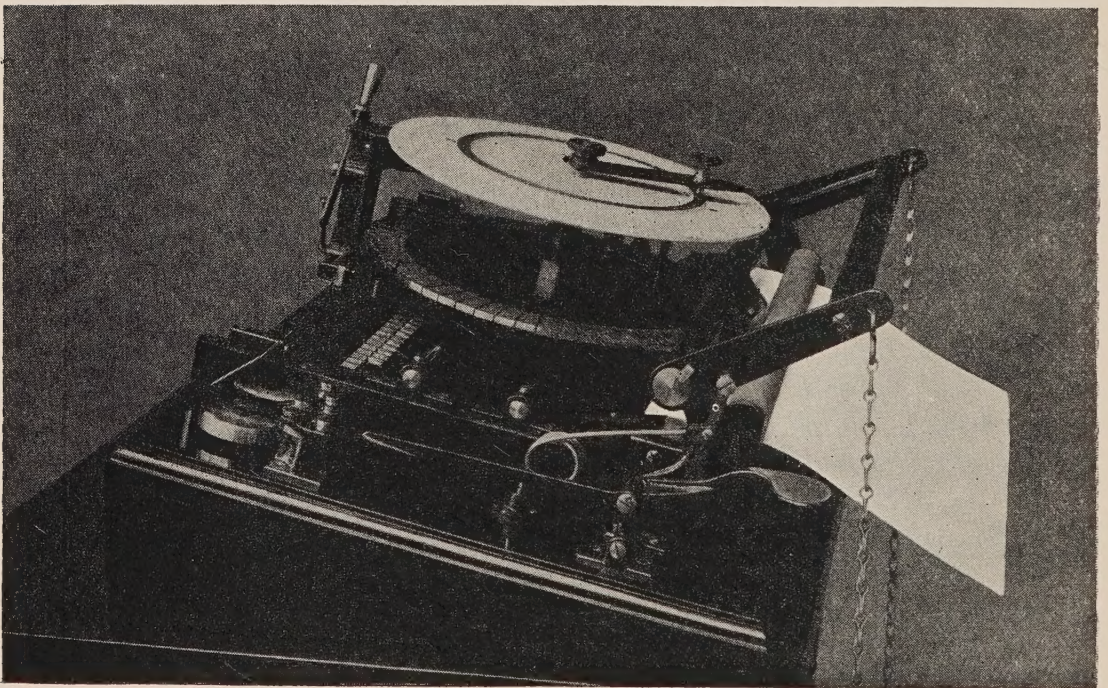
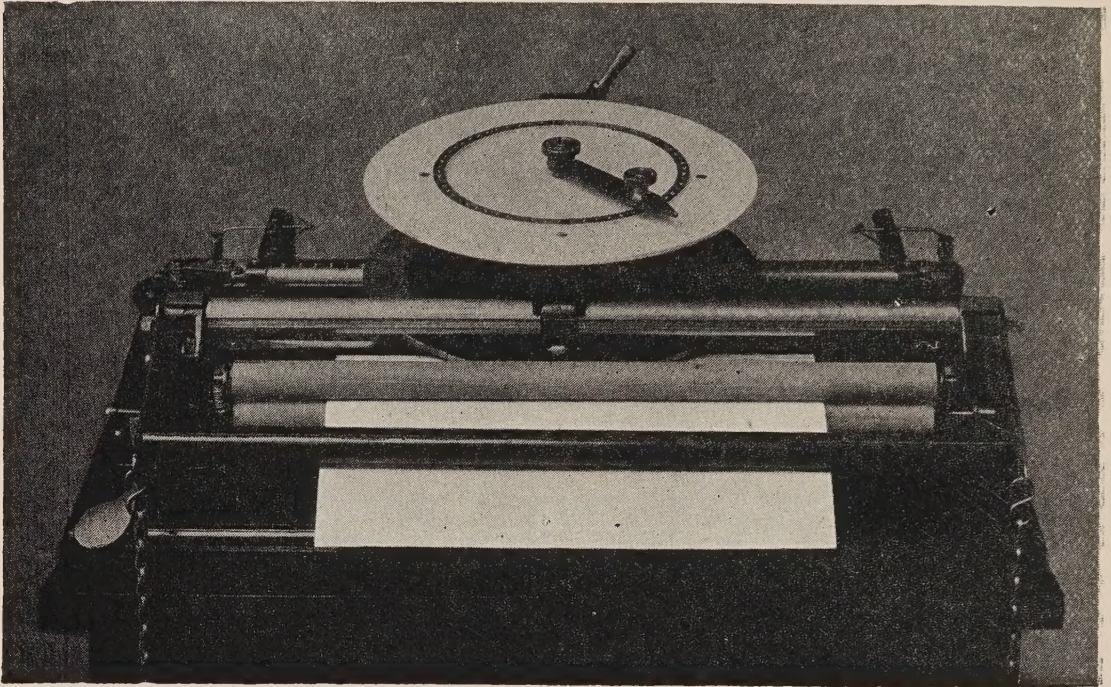
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A	B	C	D	E	F	G	H	I	J	K	L	M	N
∧	∪	∪	∪	∪	∪	∪	∪	∪	∪	∪	∪	∪	∪
O	∪	∪	∪	∪	∪	∪	∪	∪	∪	∪	∪	∪	∪

Classified Alphabet.

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
∧	∪	∪	∪	∪	∪	∪	∪	∪	∪	∪	∪	∪	∪	∪	∪
∪	∪	∪	∪	∪	∪	∪	∪	∪	∪	∪	∪	∪	∪	∪	∪

INQ	MENT	TION	NESS	0	1	2	3	4	5	6	7	8	9
∪	∪	∪	∪	∪	∪	∪	∪	∪	∪	∪	∪	∪	∪
∪	∪	∪	∪	∪	∪	∪	∪	∪	∪	∪	∪	∪	∪

EVEN NUMERALS 2 4 6 8
ODD NUMERALS 1 3 5 7 9

SHORT STOP ∪
FULL STOP ∪

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